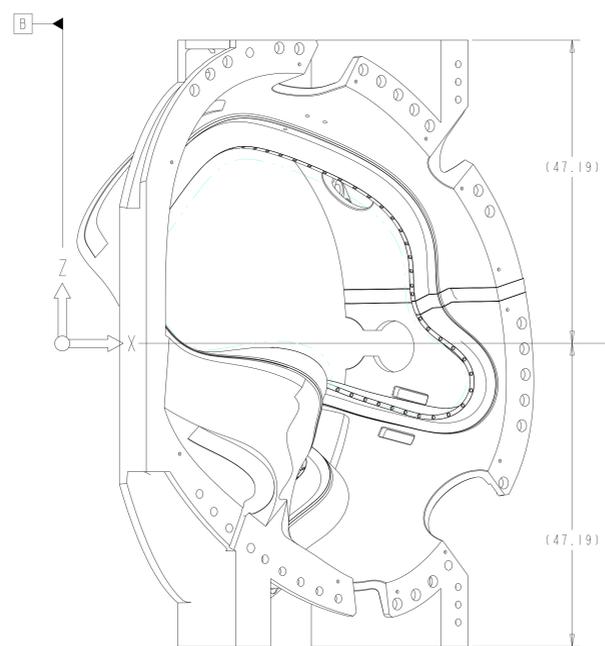


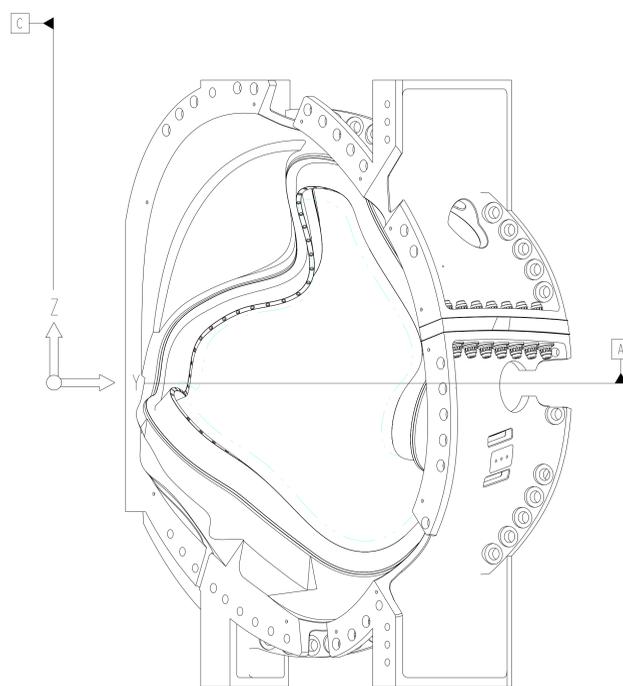
ISOMETRIC VIEW  
 SCALE 0.1

NOTES:

1. DRAWING PREPARED IN ACCORDANCE WITH ASME Y14.8M-1996.
2. INTERPRET DIMENSIONS AND TOLERANCES PER ANSI Y14.5M-1994.
3. DIMENSIONS ARE IN INCHES.
4. DRAWING DEPICTS FINAL MACHINED STATE OF ASSEMBLY DEFINED BY PRO/ENGINEER FILE SE141-103.ASM.
5. 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)
6. DIMENSIONS APPLY AT TEMPERATURE OF 20-30°C (68-86°F).
7. DIMENSIONS AND TOLERANCES EXCLUDE PROCESS MATERIAL ALLOWANCES WHICH MAY ADD MASS.
8. APPROXIMATE WEIGHT = 5080 LBS.
9. MATCH DRILL OR REAM TO ACHIEVE RUNNING FIT BETWEEN PARTS AND ASSEMBLY.
10. LUBRICATE THREADED SURFACES WITH MOLYCOTE 321R PER MANUFACTURER'S INSTRUCTIONS
11. SEE LATEST REVISION OF SPECIFICATION NCSX-CSPEC-141-03 FOR ADDITIONAL REQUIREMENTS.
12. BOND INSULATING SLEEVE (F/N 5) TO WINDING FORM (F/N 2) USING LOCTITE 411 PER MANUFACTURER'S INSTRUCTIONS.



1 SCALE 0.1



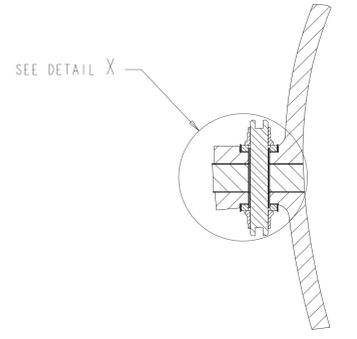
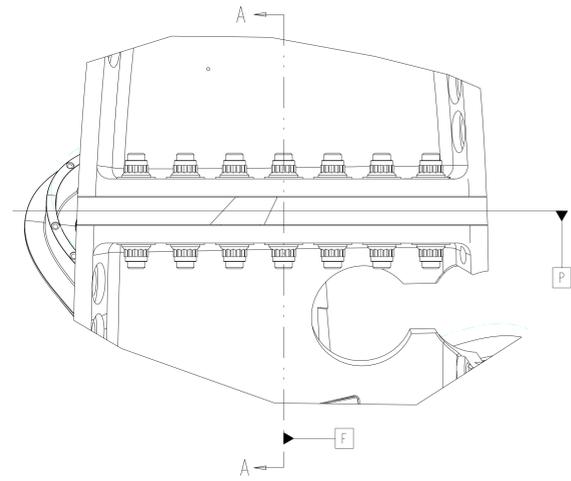
14	DS141-079	FLAT WASHER			9
14	DS141-060	NUT, 12PT HEX 1.375-6UNC-2B			8
14	DS141-038	INSULATING WASHER			7
7	DS141-036	STUD, 1.375-6UNC-2A X 9 LG			6
14	-5	MCWF INSULATING SLEEVE TYPE-C	G11CR	NEMA LI I - 1998	5
2	-4	INSULATING SHEET TYPE-C	G11CR	NEMA LI I - 1998	4
1	SE141-078	POL BREAK SHIM ASSEMBLY TYPE-C			3
1	SE141-116	PRODUCTION WINDING FORM TYPE-C			2
AR	X	-1	MOD COIL WINDING FORM ASSEMBLY TYPE-C		1
SE140-103	CAGE CODE	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	MATERIAL	SPECIFICATION
			← NEXT ASSEMBLY	PARTS LIST	

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.

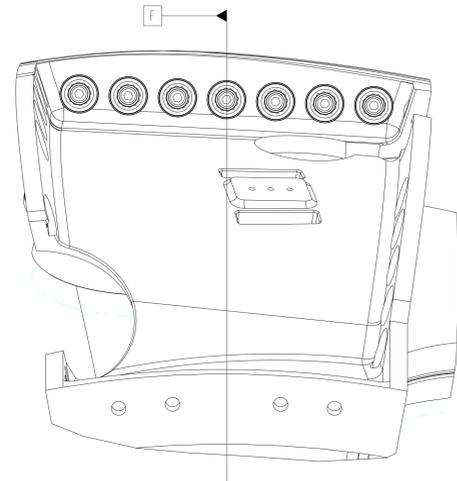
**P** THIS DRAWING PRODUCED ON PRO-ENGINEER

REV	DESCRIPTION	BY	DATE	CHK	DEPT	DATE	PE	REQ	DATE	ORNL	DOE	DATE																																																																											
1	REVISED F/N 2 PER ECN-4903	DW	9/04	MJC			DEW																																																																																
<table border="0" style="width: 100%;"> <tr> <td style="width: 20%;">SCALE NOTED</td> <td style="width: 20%;">DES T BROWN</td> <td style="width: 10%;">6-30-04</td> <td style="width: 20%;">UT-BATTELLE</td> <td style="width: 20%;">Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC, Oak Ridge, Tennessee</td> </tr> <tr> <td>TOLERANCES UNLESS OTHERWISE SPECIFIED</td> <td>DRW P MILLER</td> <td>6-30-04</td> <td colspan="2">NATIONAL COMPACT STELLARATOR EXPERIMENT</td> </tr> <tr> <td>FRACTIONS</td> <td>CHK M COLE</td> <td>6-30-04</td> <td colspan="2">MOD COIL WINDING FORM ASSEMBLY TYPE-C</td> </tr> <tr> <td>XX DECIMALS ± .01</td> <td>DEPT :</td> <td></td> <td colspan="2"></td> </tr> <tr> <td>XXX DECIMALS ± .005</td> <td>PE D WILLIAMSON</td> <td>6-30-04</td> <td colspan="2"></td> </tr> <tr> <td>ANGLES ± 0°15'</td> <td>CR :</td> <td></td> <td colspan="2"></td> </tr> <tr> <td>BREAK SHARP EDGES .06 MAX</td> <td>PJ :</td> <td></td> <td colspan="2"></td> </tr> <tr> <td>FINISH .125 UNLESS OTHERWISE SPECIFIED</td> <td>REQ :</td> <td></td> <td colspan="2"></td> </tr> <tr> <td></td> <td>RD :</td> <td></td> <td colspan="2"></td> </tr> <tr> <td></td> <td>PPPL DRFT J SIEGEL</td> <td>6-30-04</td> <td>VERSION NO. 4</td> <td>PLANT X-10</td> </tr> <tr> <td></td> <td></td> <td></td> <td>BLDG 5700</td> <td>FL 3</td> </tr> <tr> <td></td> <td></td> <td></td> <td>SHT OF 1</td> <td>TYPE S</td> </tr> <tr> <td></td> <td></td> <td></td> <td>CLASS U</td> <td>REV 1</td> </tr> <tr> <td></td> <td></td> <td></td> <td>RELEASE LEVEL Fabrication</td> <td>SE141-103</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>													SCALE NOTED	DES T BROWN	6-30-04	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	TOLERANCES UNLESS OTHERWISE SPECIFIED	DRW P MILLER	6-30-04	NATIONAL COMPACT STELLARATOR EXPERIMENT		FRACTIONS	CHK M COLE	6-30-04	MOD COIL WINDING FORM ASSEMBLY TYPE-C		XX DECIMALS ± .01	DEPT :				XXX DECIMALS ± .005	PE D WILLIAMSON	6-30-04			ANGLES ± 0°15'	CR :				BREAK SHARP EDGES .06 MAX	PJ :				FINISH .125 UNLESS OTHERWISE SPECIFIED	REQ :					RD :					PPPL DRFT J SIEGEL	6-30-04	VERSION NO. 4	PLANT X-10				BLDG 5700	FL 3				SHT OF 1	TYPE S				CLASS U	REV 1				RELEASE LEVEL Fabrication	SE141-103					
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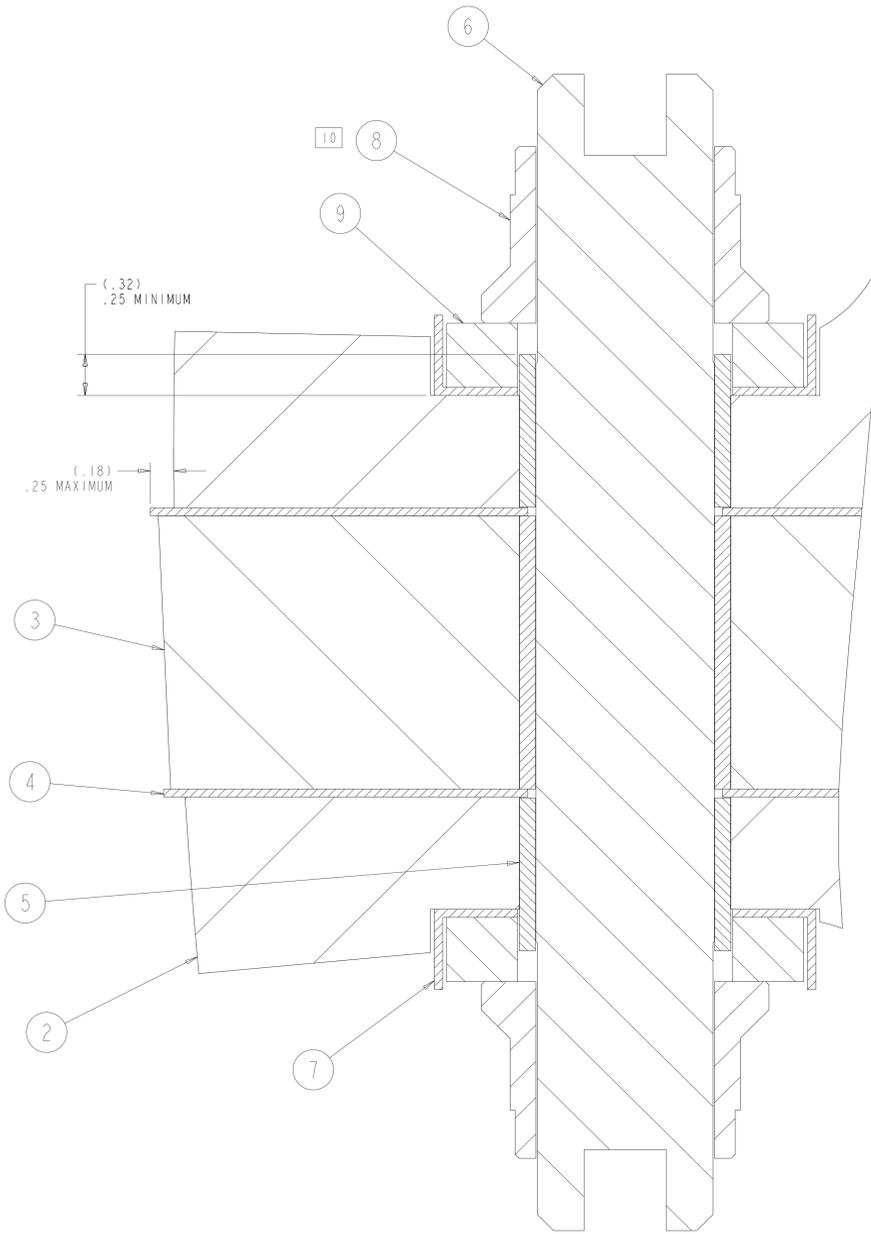
FOR NOTES AND PARTS LIST SEE SHEET 1



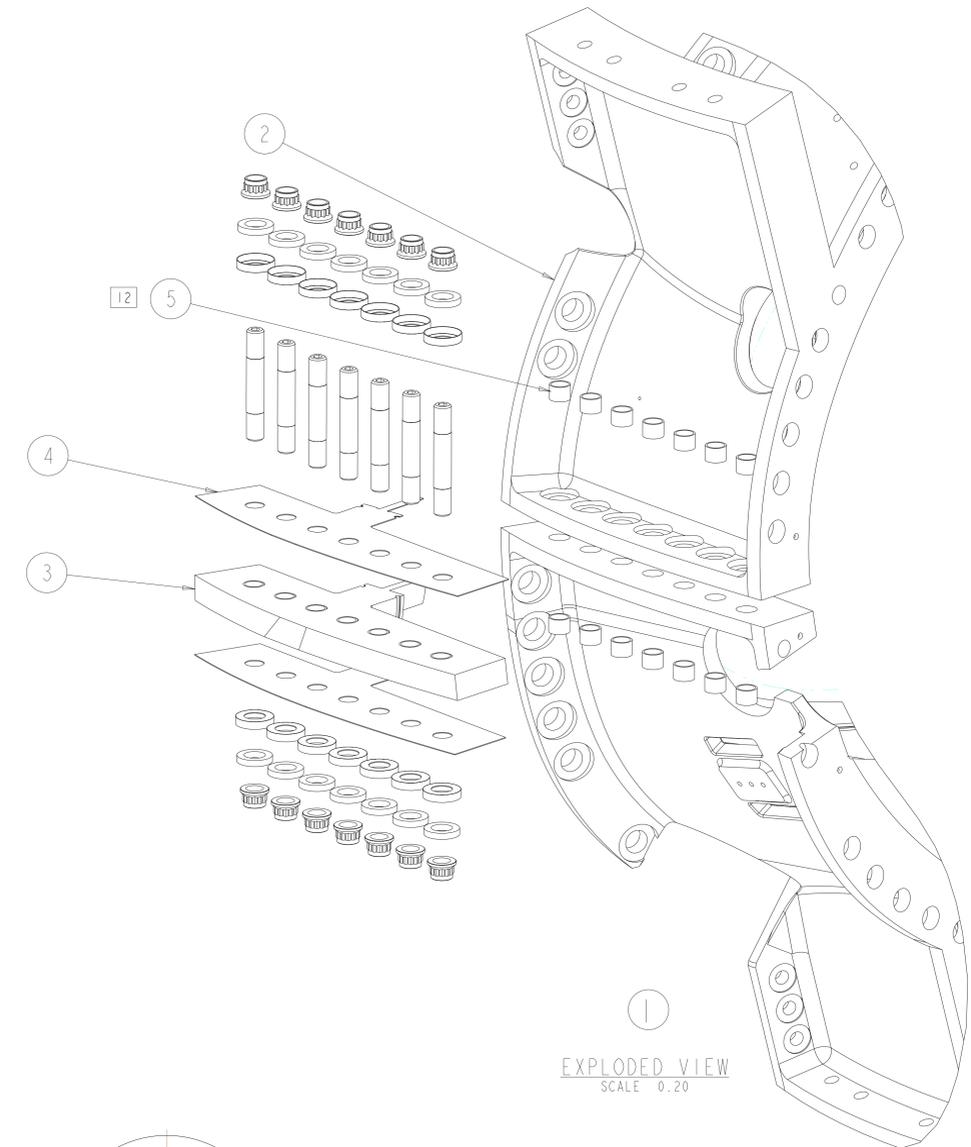
SECTION A-A  
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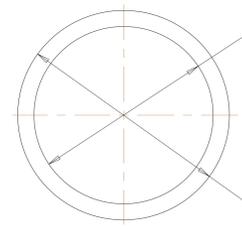
POLOIDAL BREAK DETAIL



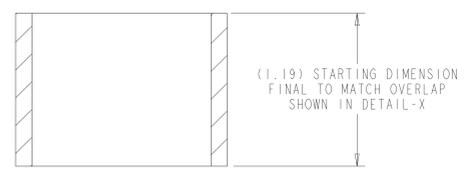
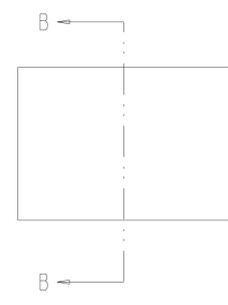
DETAIL X  
 SCALE 2.00



EXPLODED VIEW  
 SCALE 0.20



Ø1.63 TO MATCH HOLE DIA  
 MINUS .001 TO .002 FOR  
 CLEARANCE FIT



SECTION B-B  
 SCALE 2.00

Oak Ridge National Laboratory managed for the DEPARTMENT OF ENERGY under U.S. GOVERNMENT contract DE-AC05-00OR22725 UT-BATTELLE, LLC, Oak Ridge, Tennessee PROJECT NAME							
NATIONAL COMPACT STELLARATOR EXPERIMENT							
MOD COIL WINDING FORM ASSEMBLY TYPE-C							
VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS	
4	X-10	5700	3	2	S	U	
RELEASE LEVEL	SEI41-103						
Fabrication							

H  
G  
F  
E  
D  
C  
B  
A

SEI41-103