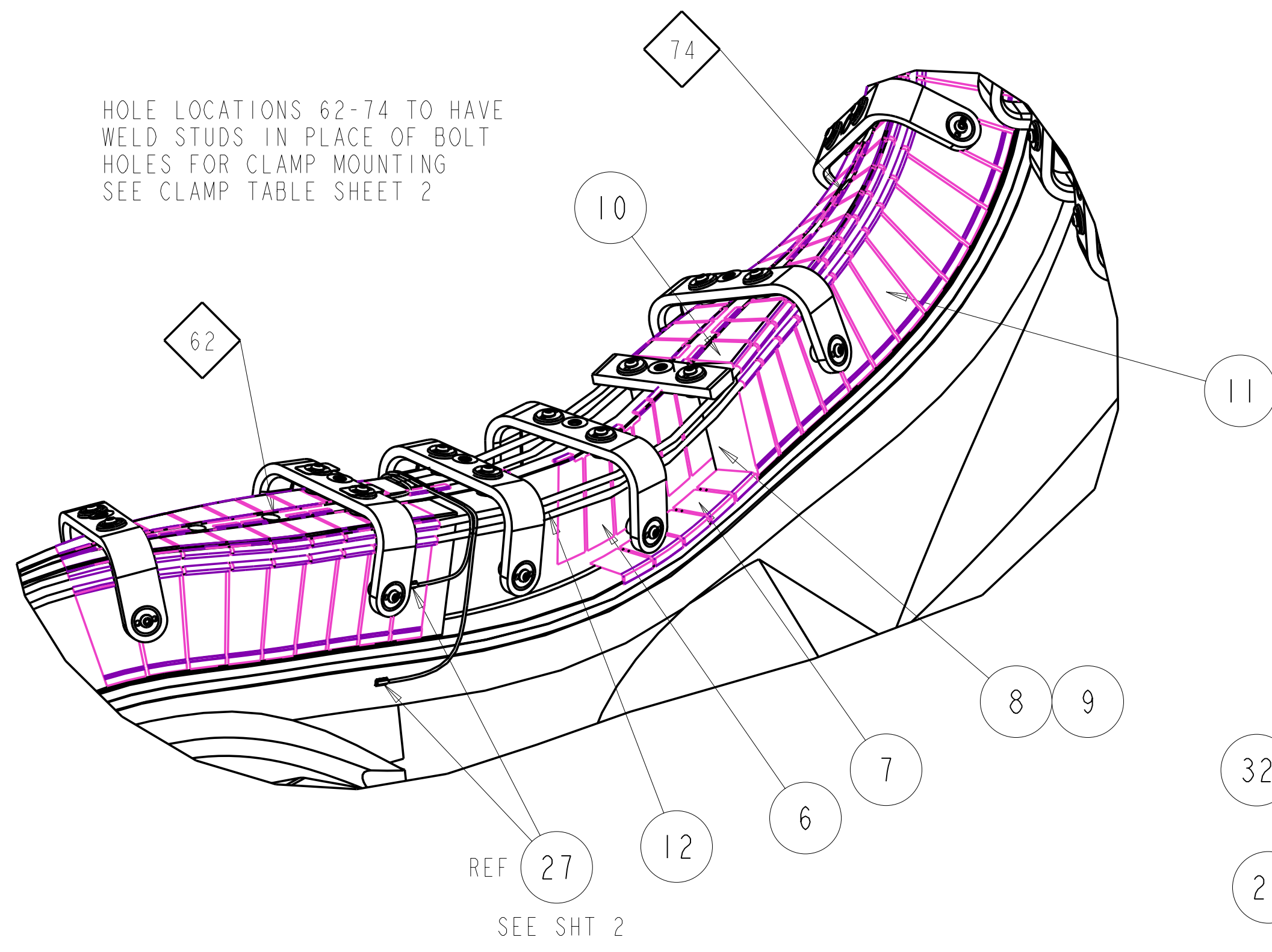
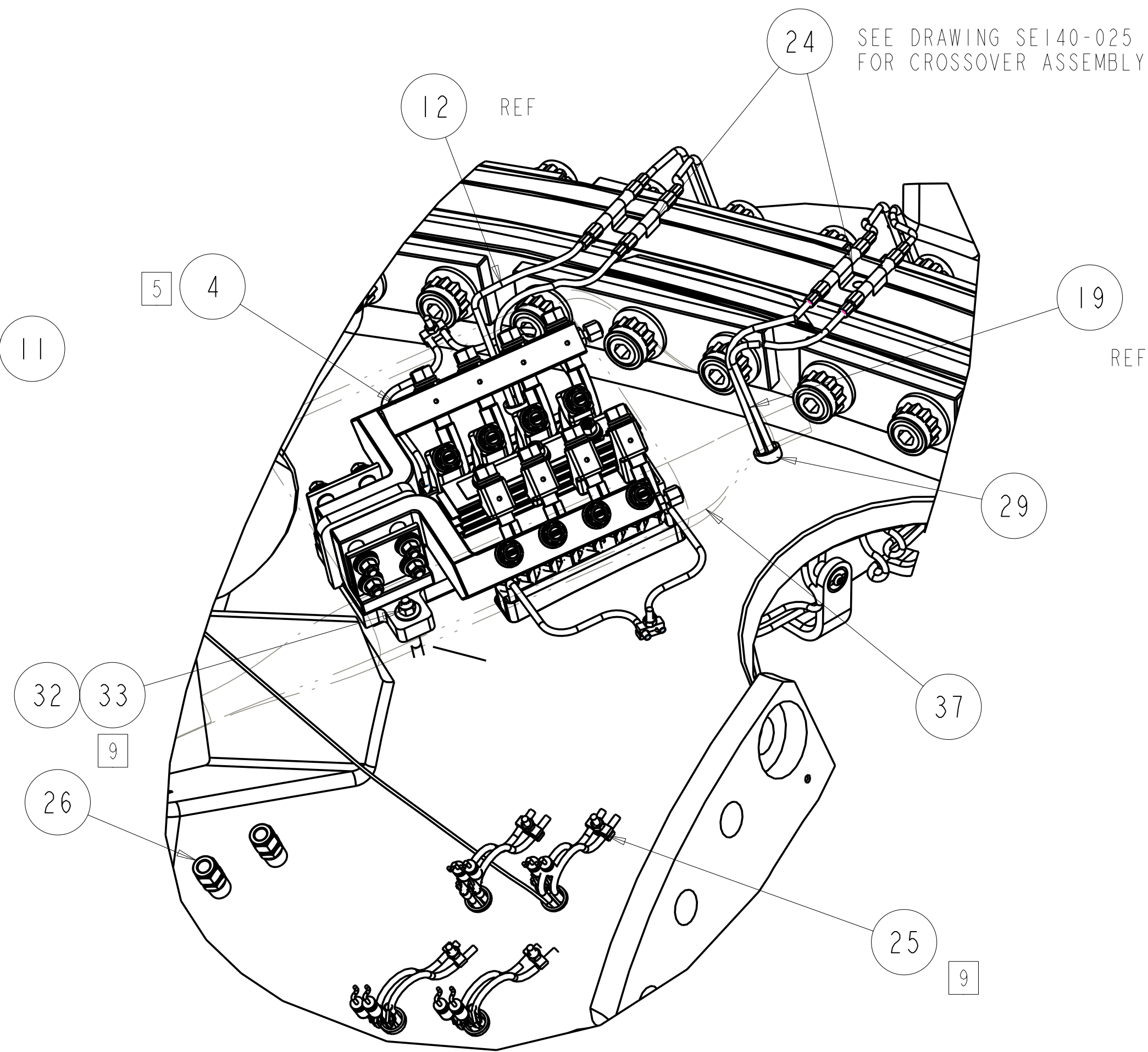


HOLE LOCATIONS 62-74 TO HAVE WELD STUDS IN PLACE OF BOLT HOLES FOR CLAMP MOUNTING SEE CLAMP TABLE SHEET 2



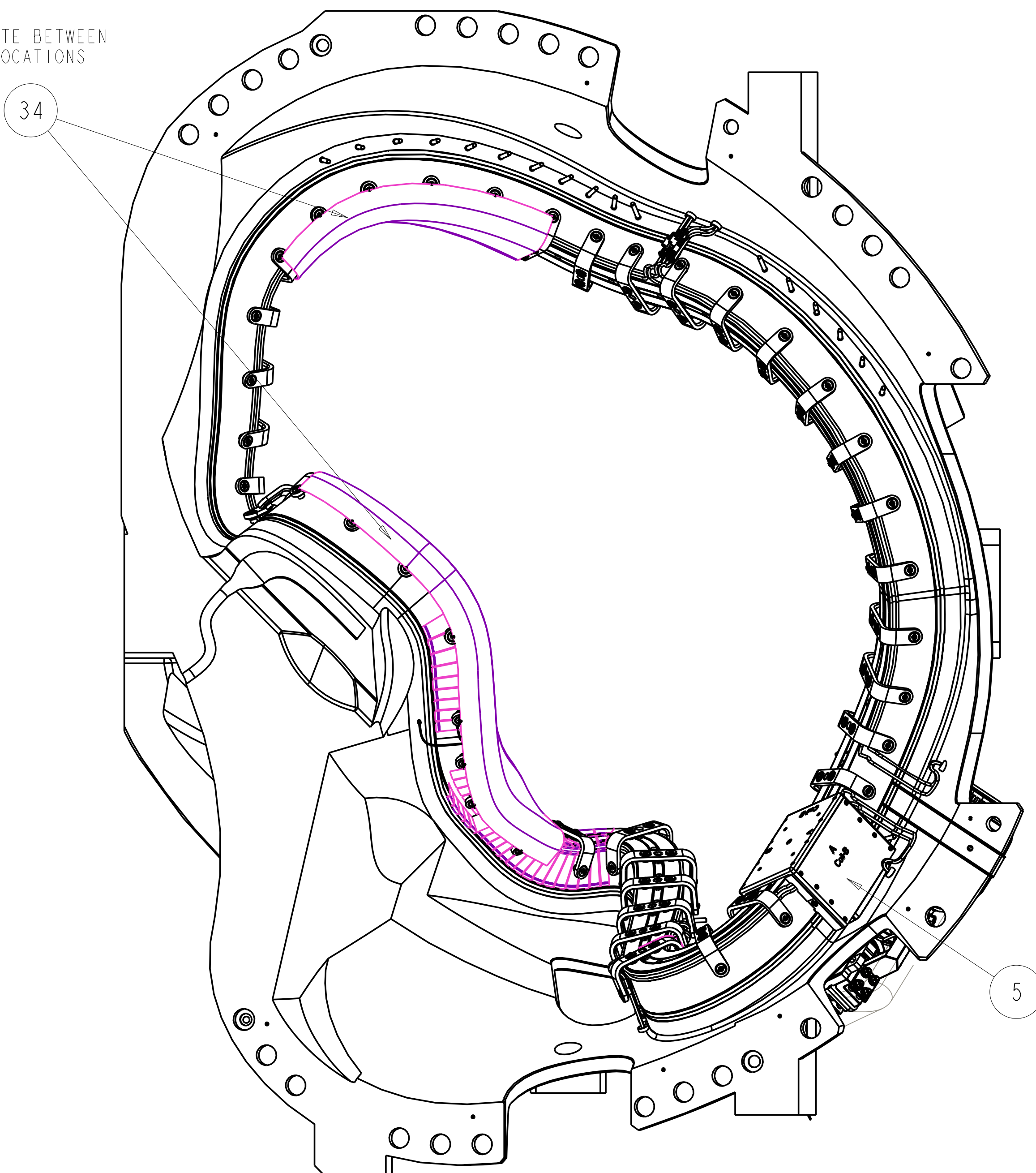
CUT-AWAY VIEW SHOWING WINDING INSTALLATION SEQUENCE (SIDE A) SCALE 0.250

SEE DRAWING SE140-025 FOR CROSSOVER ASSEMBLY DETAILS

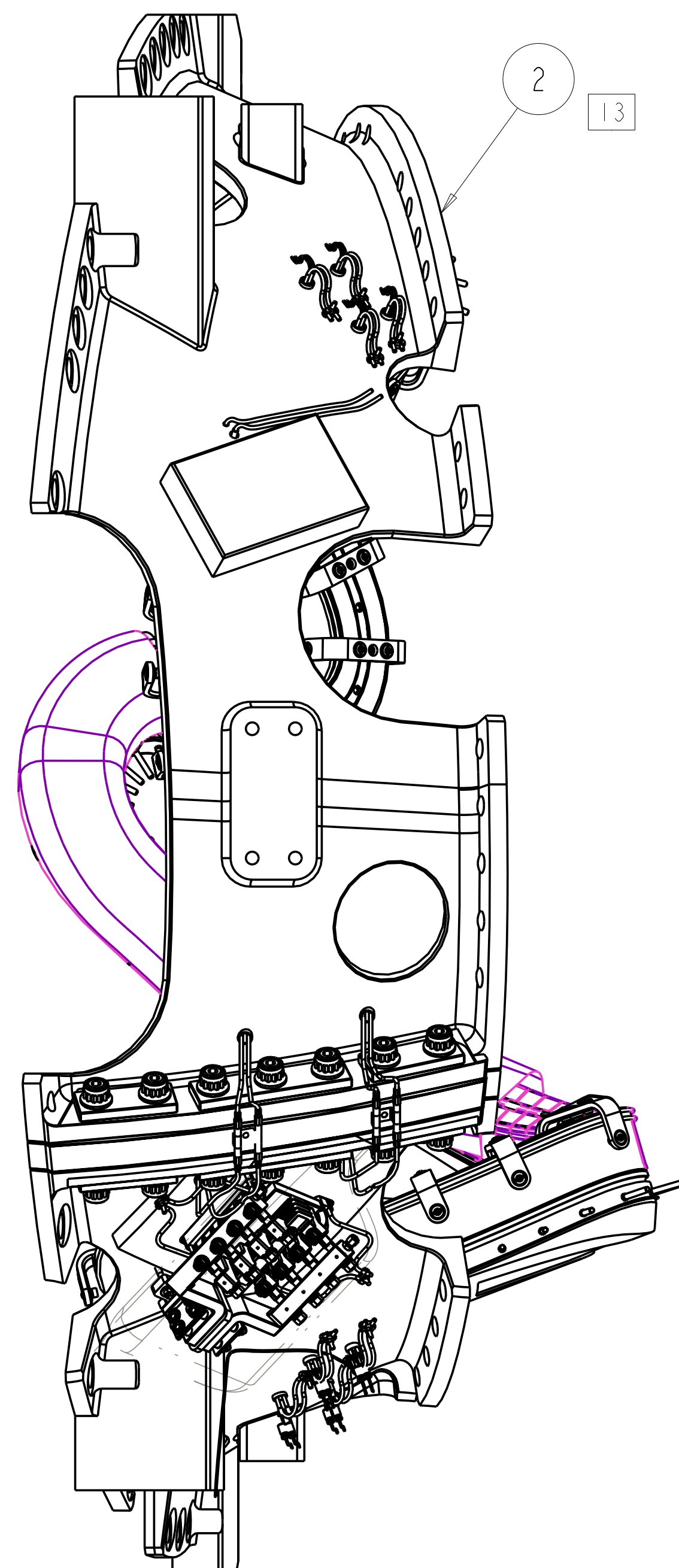


TUBING AT POLOIDAL BREAK SCALE 0.250

INSULATE BETWEEN HOLE LOCATIONS 29-40 55-73



MCWF TYPE B ASSY SCALE 0.125



- NOTES: 1. DRAWING PREPARED IN ACCORDANCE WITH ASME Y14.100-2000. 2. INTERPRET DIMENSIONS AND TOLERANCES PER ANSI Y14.5M... 3. DIMENSIONS ARE IN INCHES... 4. DIMENSIONS APPLY AT ROOM TEMPERATURE, OPERATING TEMP 80 K... 5. LEADS AREA SHALL BE COVERED WITH AN INSULATING MATERIAL (F/N 37) TO PREVENT DEBRIS FROM CAUSING AN ELECTRICAL SHORT DURING OPERATION... 6. VENDOR INFORMATION: WARWICK MILLS... 7. SEE PROCEDURE D-NCSX-MCF-001 FOR ADDITIONAL REQUIREMENTS... 8. WELDING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF PPPL PROCEDURE NO. ENG-037... 9. TACK WELD ANY ATTACHED HARDWARE TO SECURE LOCATION... 10. VENDOR INFORMATION: FISO FIBER OPTICS... 11. VENDOR INFORMATION: OMEGA ENGINEERING CORP... 12. SOME PARTS IN THIS ASSEMBLY ARE GRAPHIC REPRESENTATIONS OF ACTUAL PARTS/ASSEMBLIES... 13. TYPE "B" COIL: REMOVE NOTED STUDS AFTER CLAMP AND INSULATION BLANKETS ARE ASSEMBLED (POST VPI)... 14. MAGNETIC PERMEABILITY NOT TO EXCEED 1.02 AS TESTED BY A SEVERN INDICATOR AVAILABLE FROM: SEVERN ENGINEERING... 15. FOR WINDINGS AND GROUNDWRAP DETAILS REFER TO MODULAR COIL CONDUCTOR SPECIFICATION NCSX-CSPEC-142-03-05... 16. VENDOR INFORMATION: MCMaster CARR...

Table with columns for Item No, Description, Material, Specification, and Find No. Includes parts like SE140-031, NCSX PRL-12-003, 91950A031, etc.

Table with columns: CAGE CODE, PART OR IDENTIFYING NO, NOMENCLATURE OR DESCRIPTION, MATERIAL, SPECIFICATION, FIND NO. Includes a 'PARTS LIST' header.

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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...

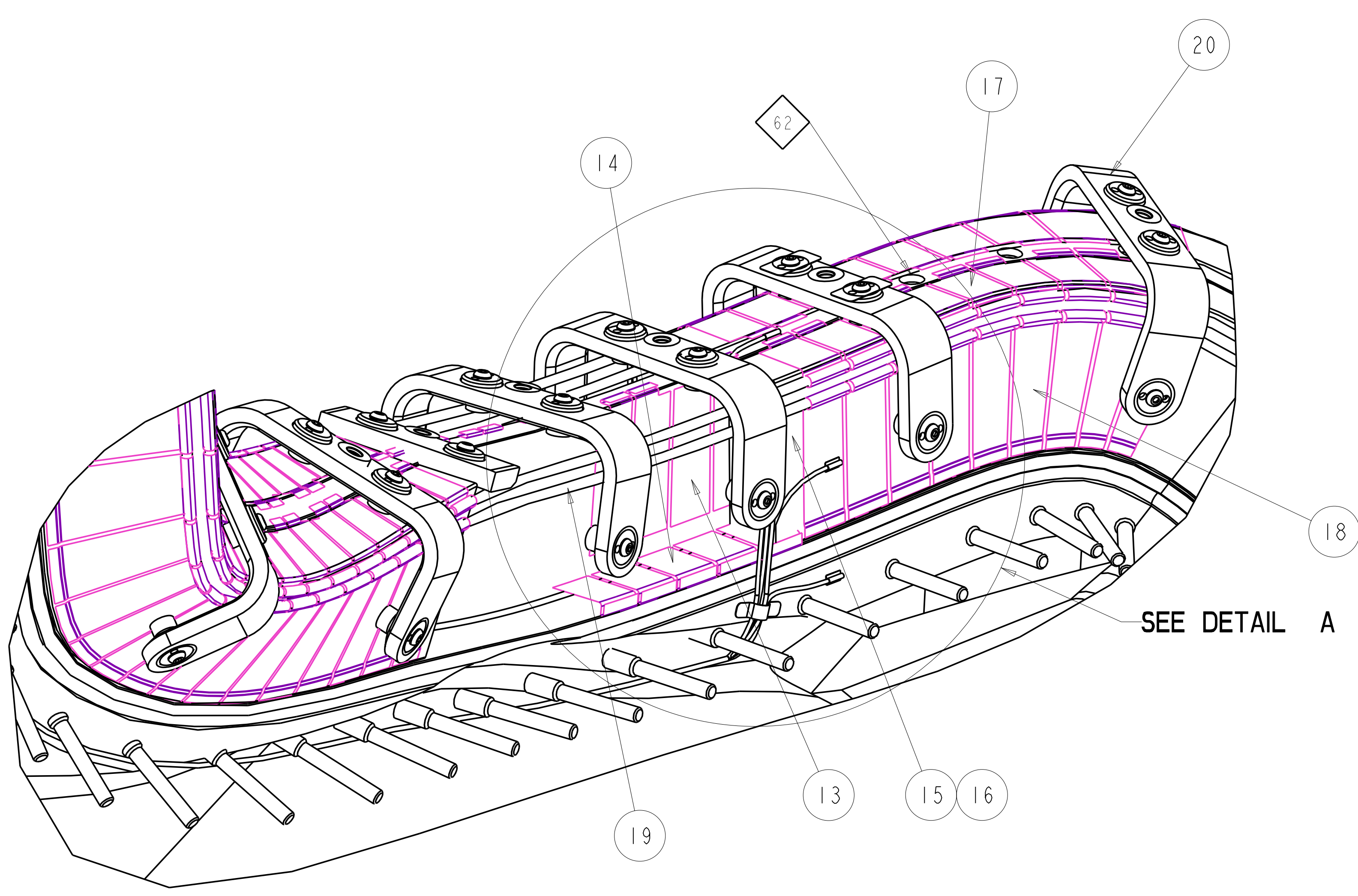
THIS DRAWING PRODUCED ON PRO-ENGINEER

Revision table with columns: REV, DESCRIPTION, BY, DATE, CHK, DEPT, DATE, PE, REQ, DATE, DRNL, DOE, DATE. Includes revision 1: REVISE ASSEMBLY AND DRAWING PER ECN 5361.

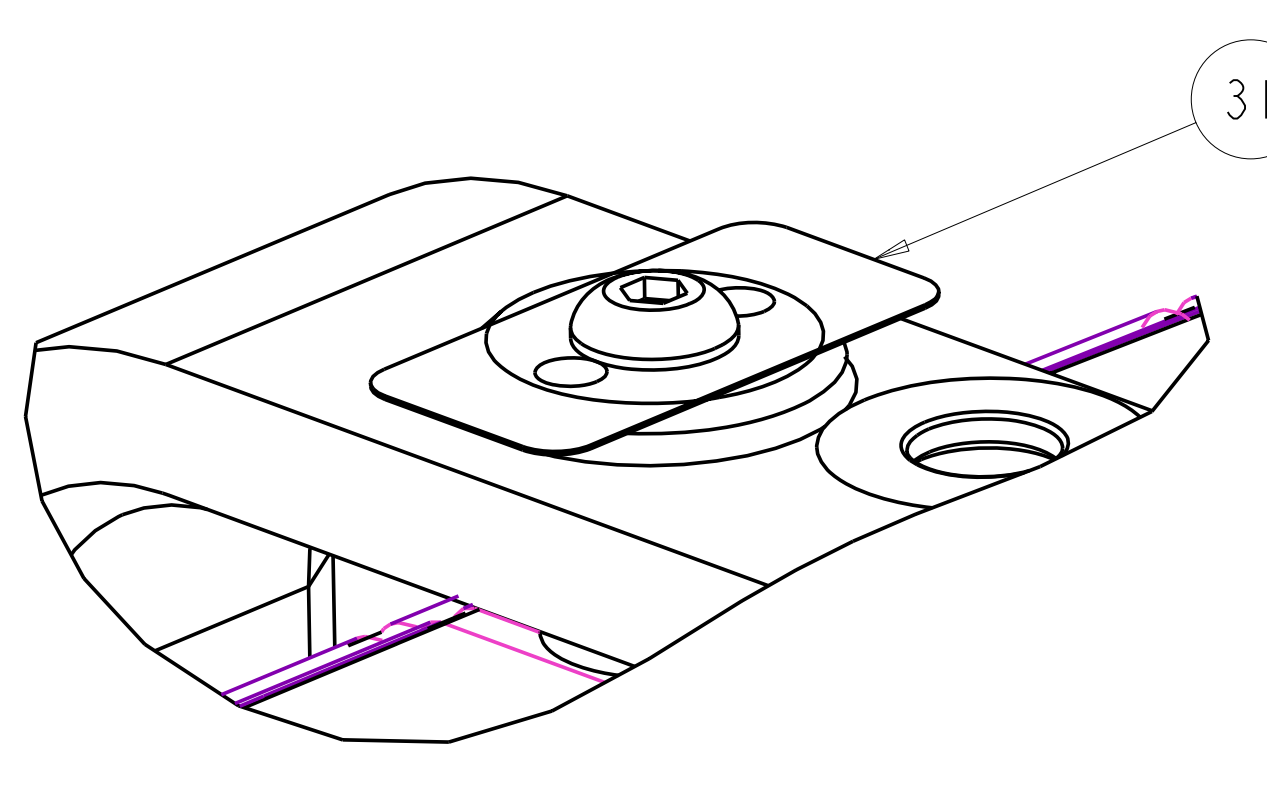
Scale and Tolerances table with columns: SCALE NOTED, TOLERANCES UNLESS OTHERWISE SPECIFIED, FRACTIONS, XX DECIMALS, XXX DECIMALS, ANGLES, BREAK SHARP EDGES, FINISH.

Project information table with columns: DES, DRW, CHK, SECT, DEPT, PE, PROJ, REV, PPPL DRFT, VERSION NO., PLANT, BLDG, FL, SHT OF, TYPE, CLASS. Includes Oak Ridge National Laboratory and UT-BATTELLE information.

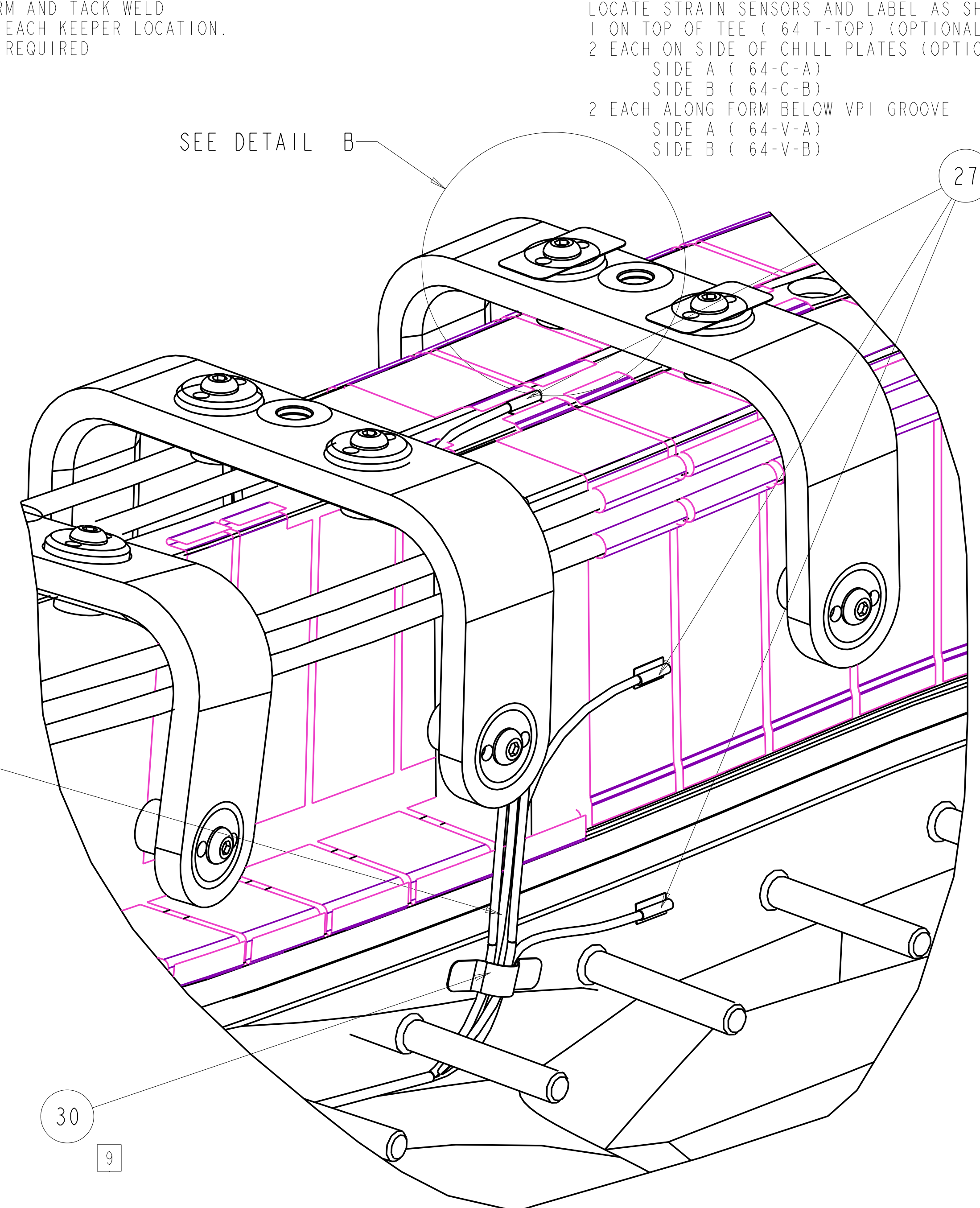
Vertical text on the right edge: H, G, F, E, D, C, B, A



CUT-AWAY VIEW SHOWING WINDING
 INSTALLATION SEQUENCE (SIDE B)
 SCALE: 0.500



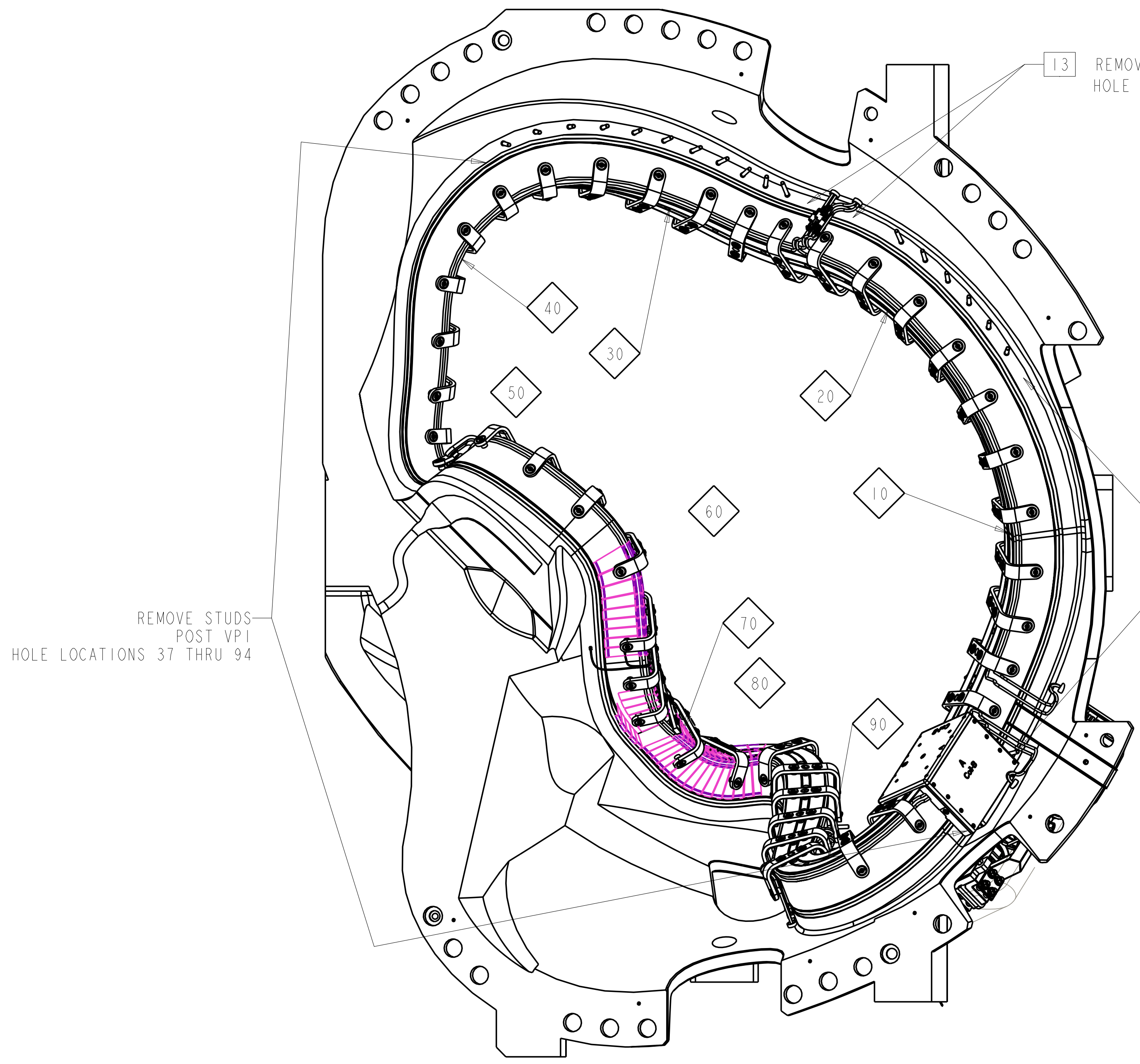
DETAIL B
 SCALE: 2.00



DETAIL A
 SCALE: 1.00

STRAIN GAGE CHART			
NO.	LABEL	LOCATION	LEADS LENGTH
1	64-T-TOP	HOLE 64 (OPTIONAL) TOP OF "TEE"	28"
2	64-C-A	HOLE 64 (OPTIONAL) SIDE "A"	28"
3	64-C-B	HOLE 64 (OPTIONAL) SIDE "B"	28"
4	64-V-A	HOLE 64 UNDER VPI GROOVE SIDE "A"	28"
5	64-V-B	HOLE 64 UNDER VPI GROOVE SIDE "B"	28"

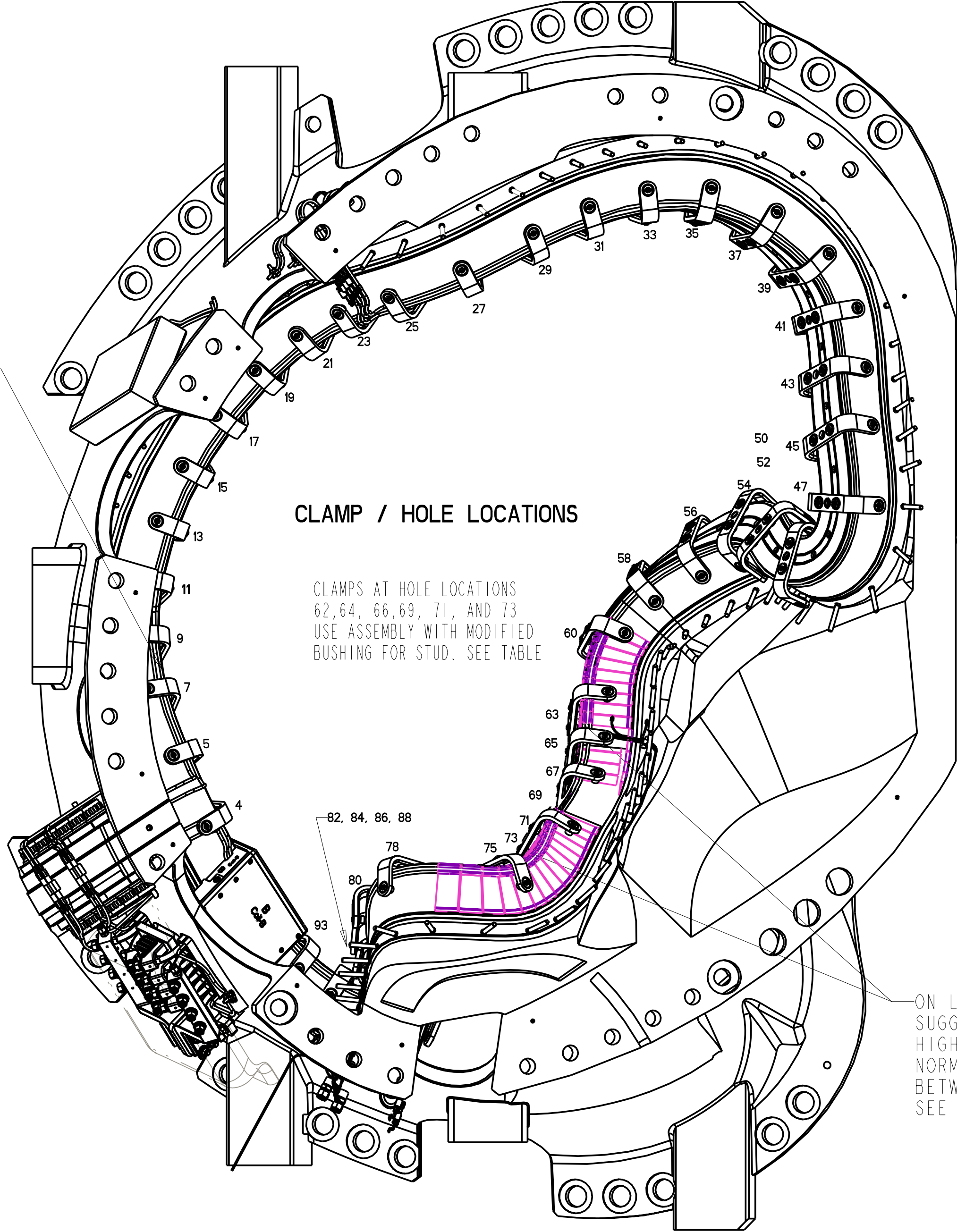
CLAMP CHART		
HOLE NO.	CLAMP ASSEMBLY (SE142B-010)	CLAMP #
03	SE142C-270	1
05	SE142C-270	2
07	SE142C-270	3
09	SE142C-270	4
11	SE142C-270	5
13	SE142C-270	6
15	SE142C-270	7
17	SE142C-270	8
19	SE142C-270	9
21	SE142C-270	10
23	SE142C-270	11
25	SE142C-270	12
27	SE142C-270	13
29	SE142C-270	14
31	SE142C-270	15
33	SE142C-270	16
35	SE142C-270	17
37	SE142C-270	18
39	SE142C-270	19
41	SE142C-270	20
43	SE142C-270	21
45	SE142C-270	22
47	SE142C-270	23
50	SE142C-270	24
52	SE142C-270	25
54	SE142C-270	26
56	SE142C-270	27
58	SE142C-270	28
60	SE142C-303	29
62	SE142C-307	30
64	SE142C-307	31
66	SE142C-307	32
69	SE142C-307	33
71	SE142C-307	34
73	SE142C-307	35
75	SE142C-270	36
78	SE142C-270	37
80	SE142C-270	38
82	SE142C-270	39
84	SE142C-270	40
86	SE142C-270	41
88	SE142C-270	42
91	SE142C-270	43
93	SE142C-270	44



SIDE "A" VIEW

13 "KEEP" STUDS FROM HOLE LOCATIONS 8-22 REMOVE ALL OTHER STUDS (SIDE B) POST VPI

13 REMOVE STUDS (POST VPI) FROM HOLE LOCATIONS 4 THRU 15



SIDE "B" VIEW

CLAMP / HOLE LOCATIONS

CLAMPS AT HOLE LOCATIONS 62, 64, 66, 69, 71, AND 73 USE ASSEMBLY WITH MODIFIED BUSHING FOR STUD. SEE TABLE

ON LAST FIELD PERIOD SUGGESTED STRESS SENSOR LOCATION HIGH STRESS REGION ON PLANE NORMAL TO THE WINDING LAW BETWEEN HOLE LOCATIONS 63 - 73 SEE DETAIL "A"

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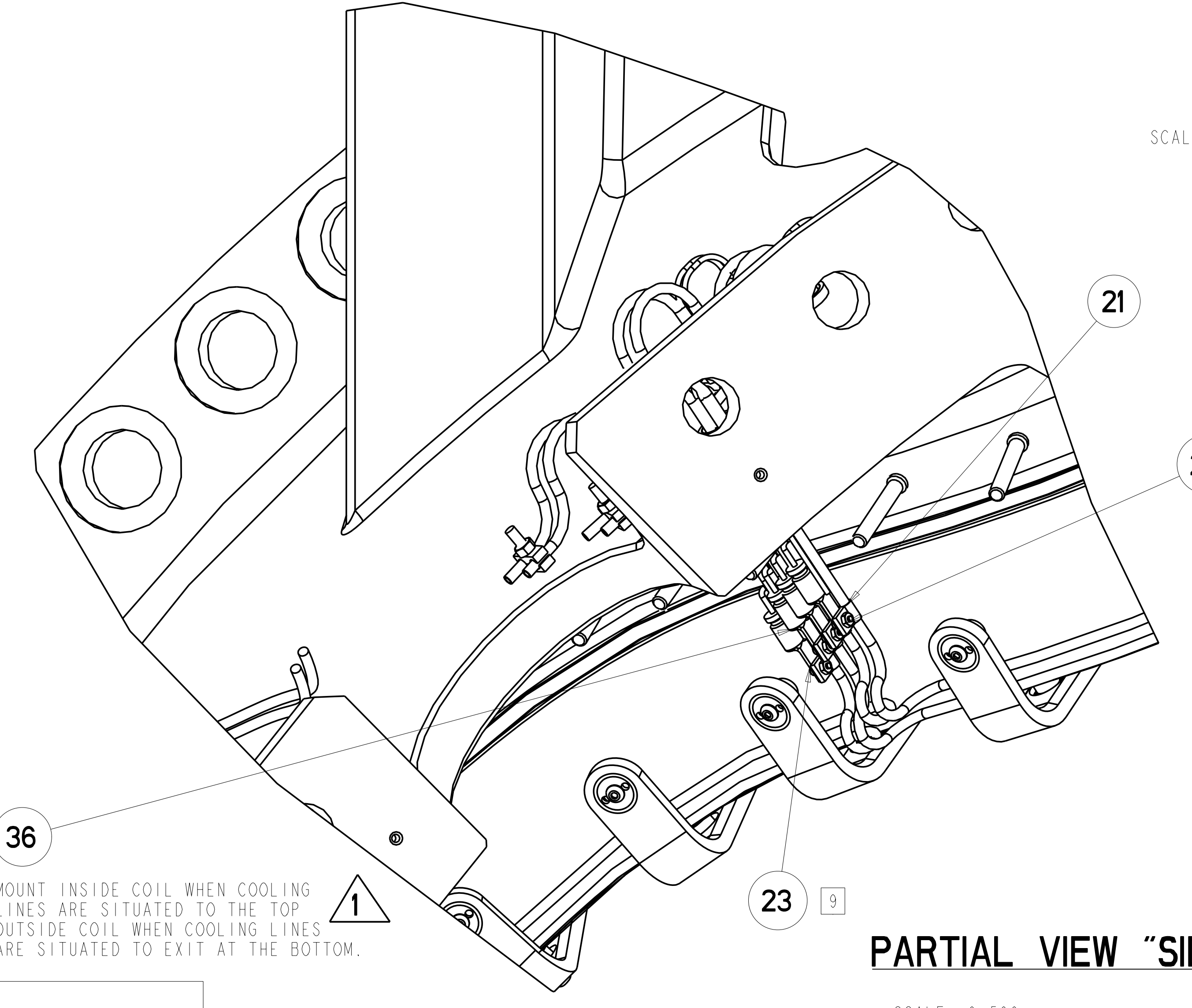
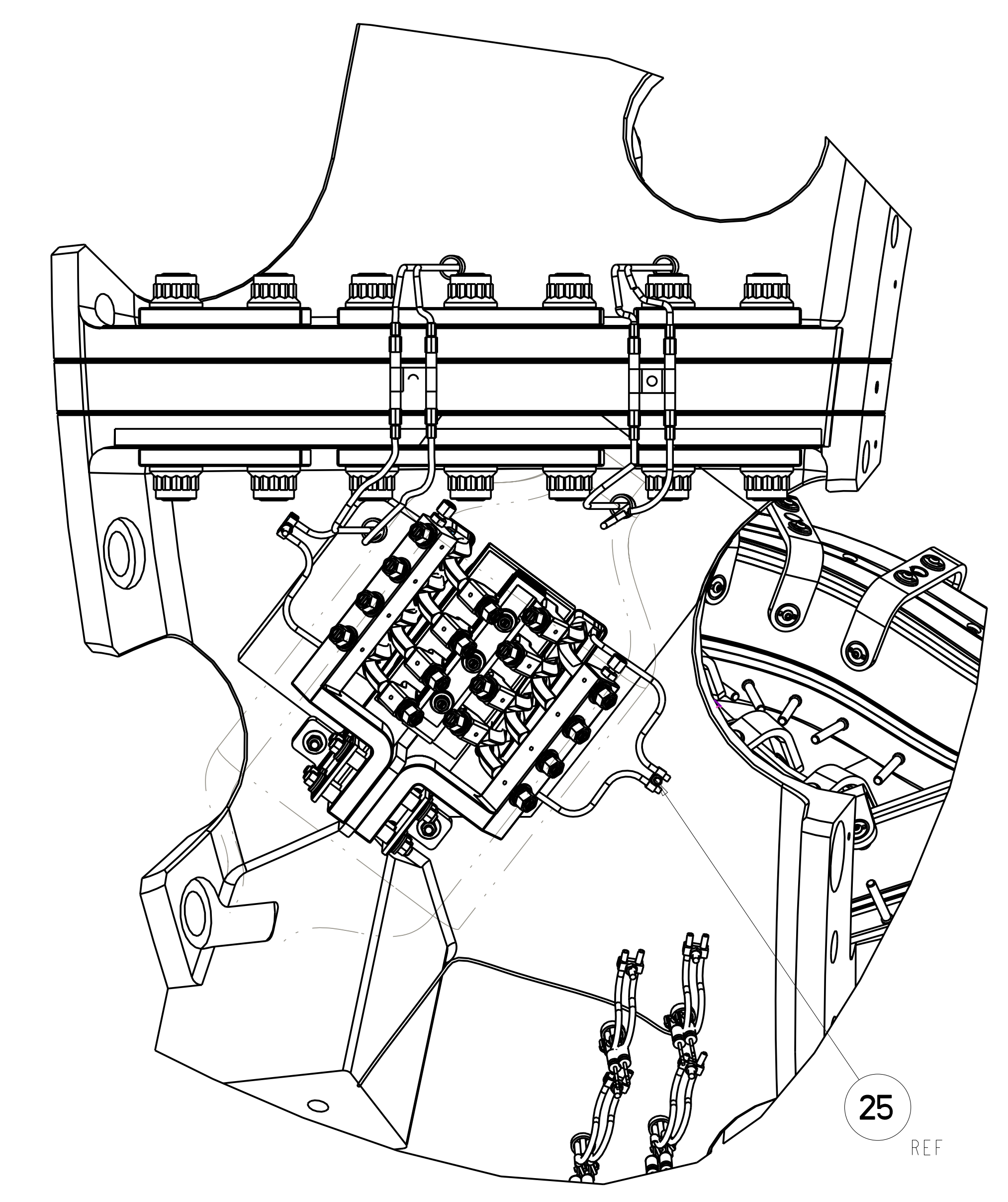
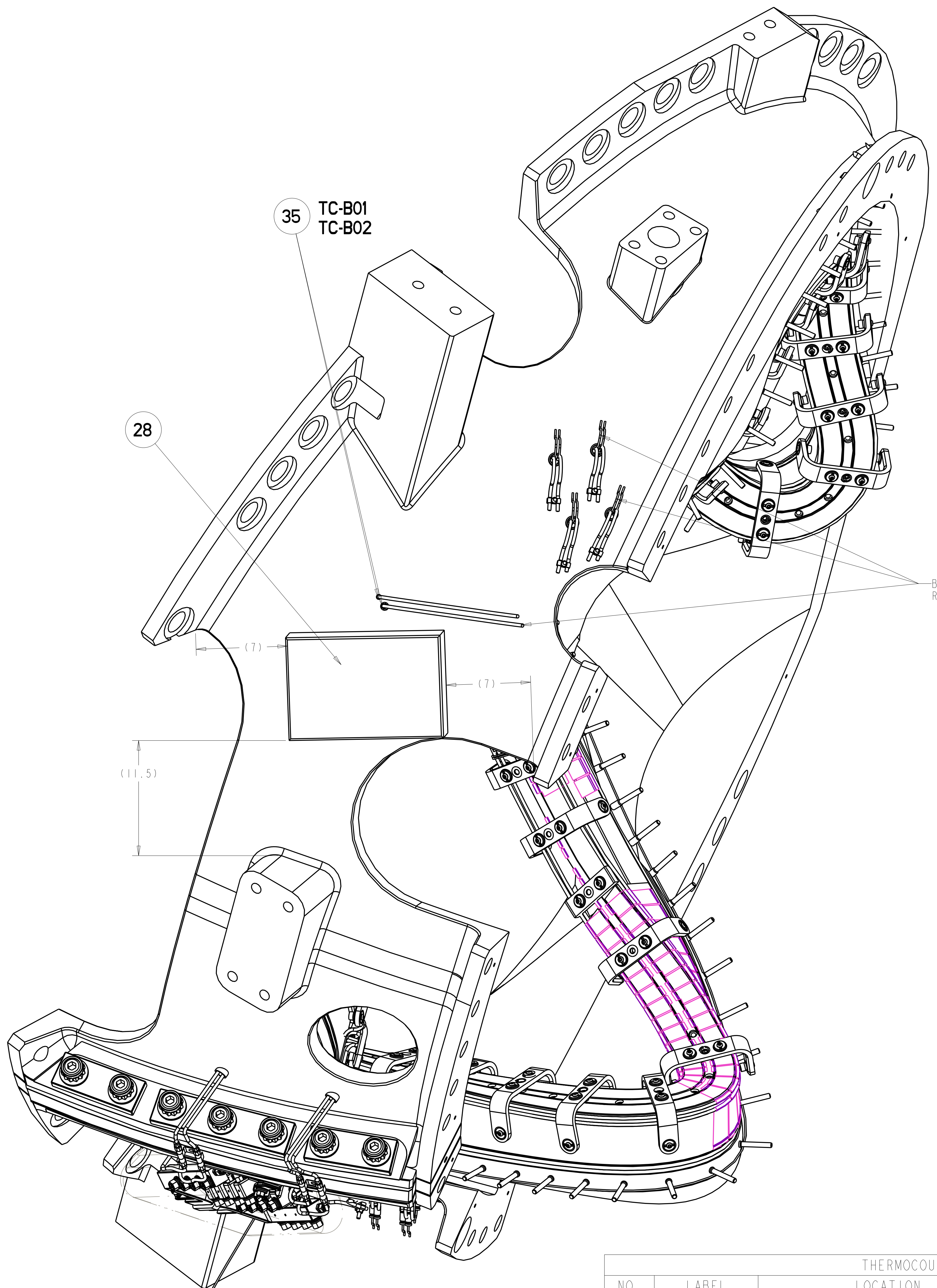
UT-BATTELLE

NATIONAL COMPACT STELLARATOR EXPERIMENT

MCWF TYPE "B"
 FULL COIL ASSEMBLY

VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS
3	X-10	5700	3	2 3	S	U
RELEASE LEVEL		SE140-102				
Fabrication						

201 SE140-102



- TC-B11
- TC-B12
- TC-B13
- TC-B14
- TC-B15
- TC-B16
- TC-B17
- TC-B18
- TC-B03
- TC-B04
- TC-B05
- TC-B06
- TC-B07
- TC-B08
- TC-B09
- TC-B10

THERMOCOUPLE CHART			
NO.	LABEL	LOCATION	LEAD LENGTH TO BUNDLE @ (FT)*
1	TC-B01	INBOARD T/C HOLE	27'
2	TC-B02	INBOARD T/C HOLE (DUPLICATE)	27'
3	TC-B03	COOLING LINE OUTLET 1	29'
4	TC-B04	COOLING LINE OUTLET 2	29'
5	TC-B05	COOLING LINE OUTLET 3	29'
6	TC-B06	COOLING LINE OUTLET 4	29'
7	TC-B07	COOLING LINE OUTLET 5	29'
8	TC-B08	COOLING LINE OUTLET 6	29'
9	TC-B09	COOLING LINE OUTLET 7	29'
10	TC-B10	COOLING LINE OUTLET 8	29'
11	TC-B11	COOLING LINE OUTLET 9	29'
12	TC-B12	COOLING LINE OUTLET 10	29'
13	TC-B13	COOLING LINE OUTLET 11	29'
14	TC-B14	COOLING LINE OUTLET 12	29'
15	TC-B15	COOLING LINE OUTLET 13	29'
16	TC-B16	COOLING LINE OUTLET 14	29'
17	TC-B17	COOLING LINE OUTLET 15	29'
18	TC-B18	COOLING LINE OUTLET 16	29'

SCALE 0.250

SCALE 0.250

PARTIAL VIEW "SIDE B"

SCALE 0.500

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 UT-BATTELLE, LLC, Oak Ridge, Tennessee

UT-BATTELLE

NATIONAL COMPACT STELLARATOR EXPERIMENT

MCWF TYPE "B"
 FULL COIL ASSEMBLY

VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS
2	X-10	5700	3	3	S	U
RELEASE LEVEL	SEI40-102					REV
Fabrication						0

*FIELD FIT AND LABEL

201 SEI40-102