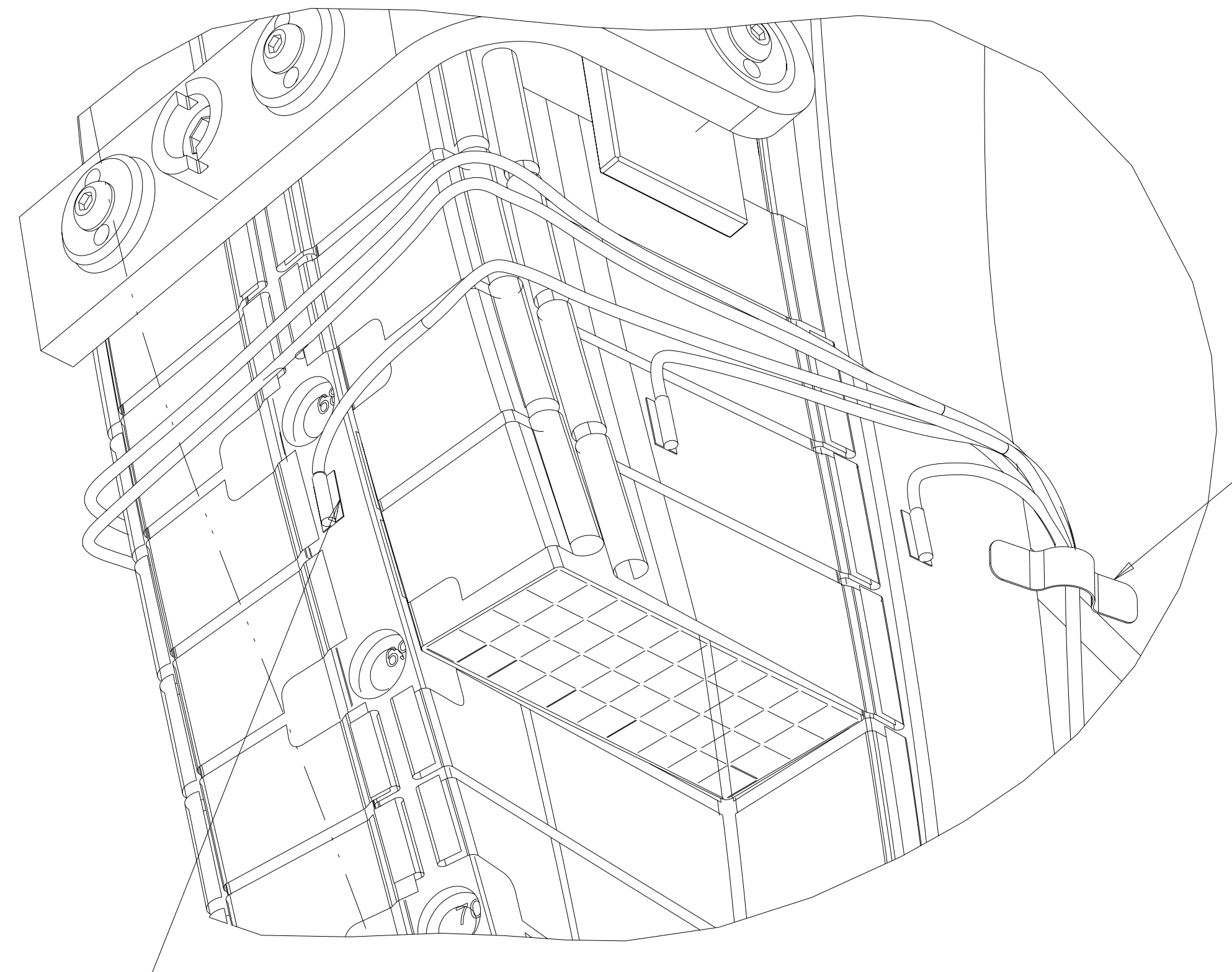


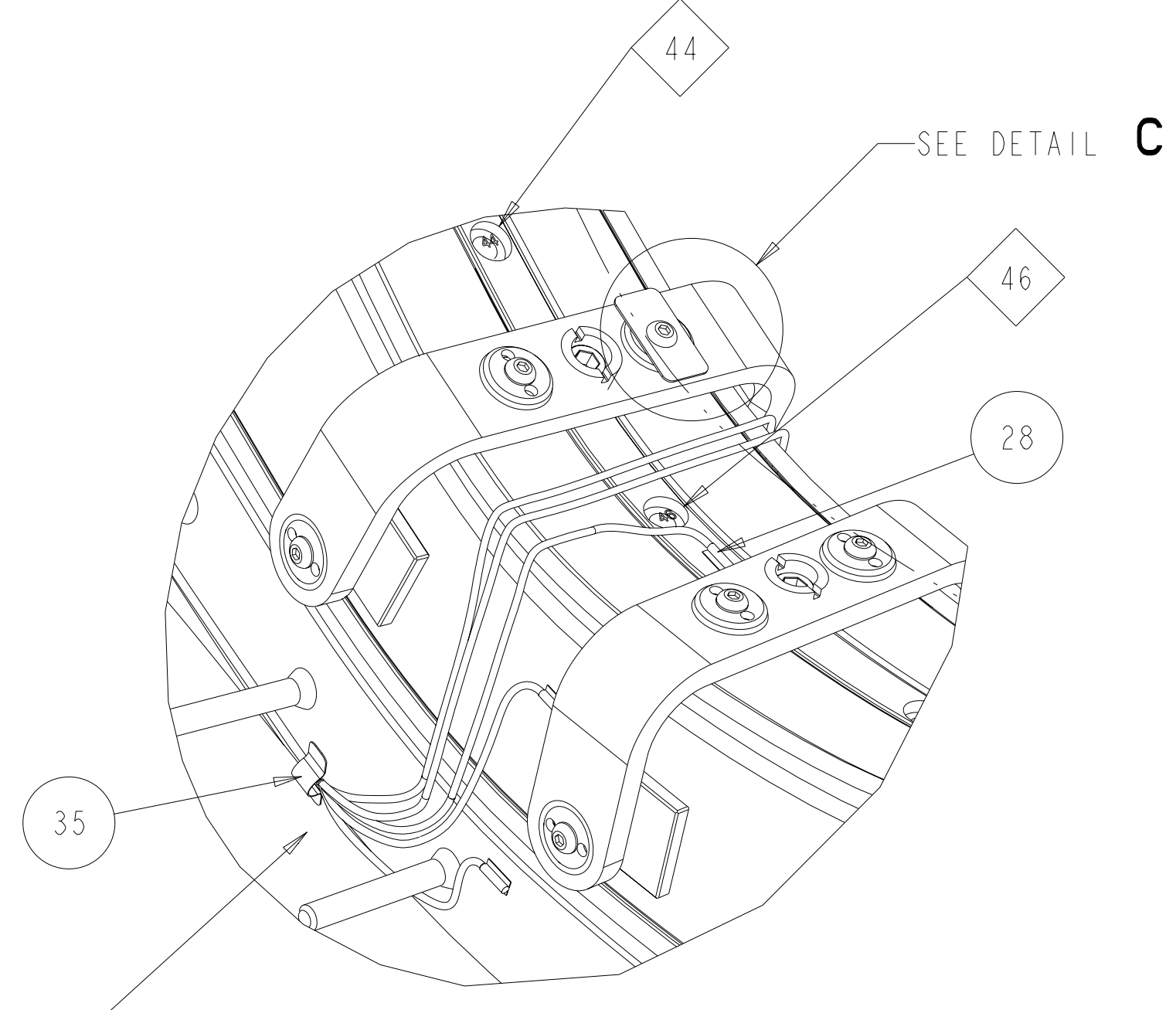
**CUT-AWAY VIEW SHOWING WINDING ASSEMBLY SEQUENCE (SIDE "B")**  
SCALE 0.50



**DETAIL B**  
SCALE 1.00

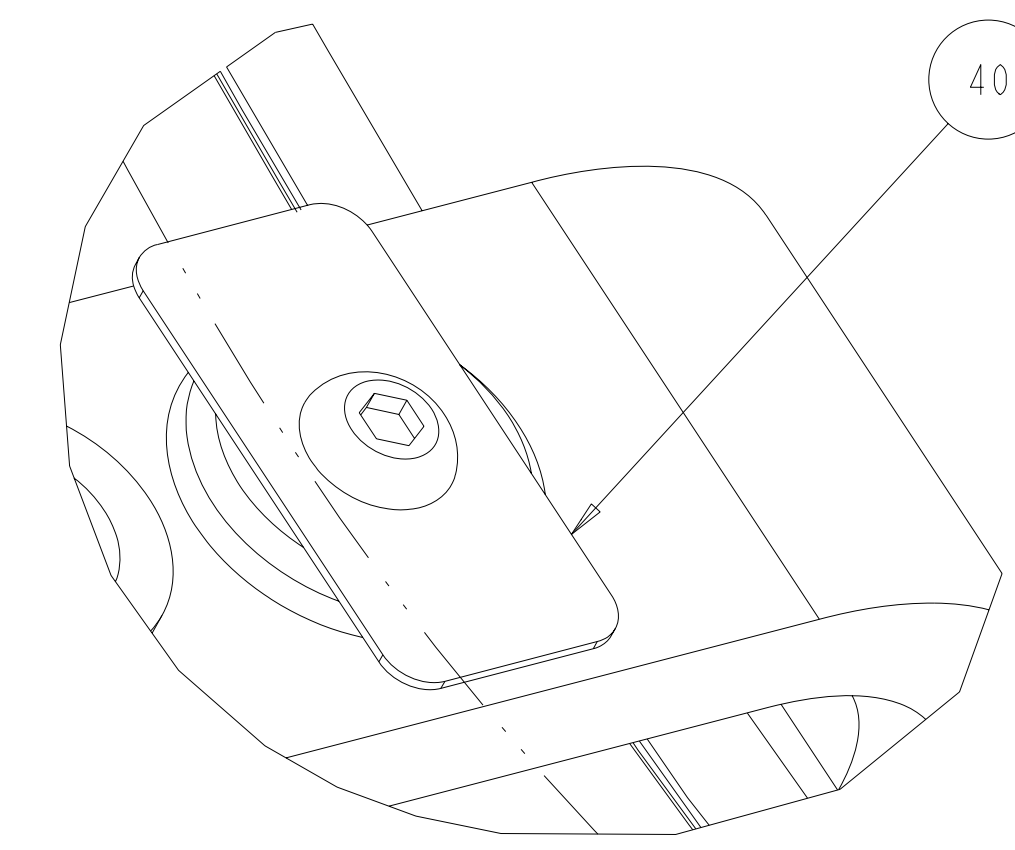
ON LAST FIELD PERIOD ASSEMBLY:  
LOCATE STRAIN SENSORS AND LABEL AS SHOWN  
1 EACH ON TOP OF TEE (ie 68-T-TOP)  
2 EACH ON SIDE CHILL PLATE  
ie (SIDE A) 68-C-A AND (SIDE B) 68-C-B  
2 EACH ALONG FORM BELOW VPI GROOVE  
ie (SIDE A) 68-V-A AND (SIDE B) 68-V-B

ON LAST FIELD PERIOD ASSEMBLY:  
COLOR CODE OR IDENTIFY EACH CABLE WITH  
HOLE NUMBER ASSOCIATED AND LOCATION  
BUNDLE FIBER OPTIC STRAIN SENSOR CABLE  
EXIT COIL WITH COOLING TUBES.



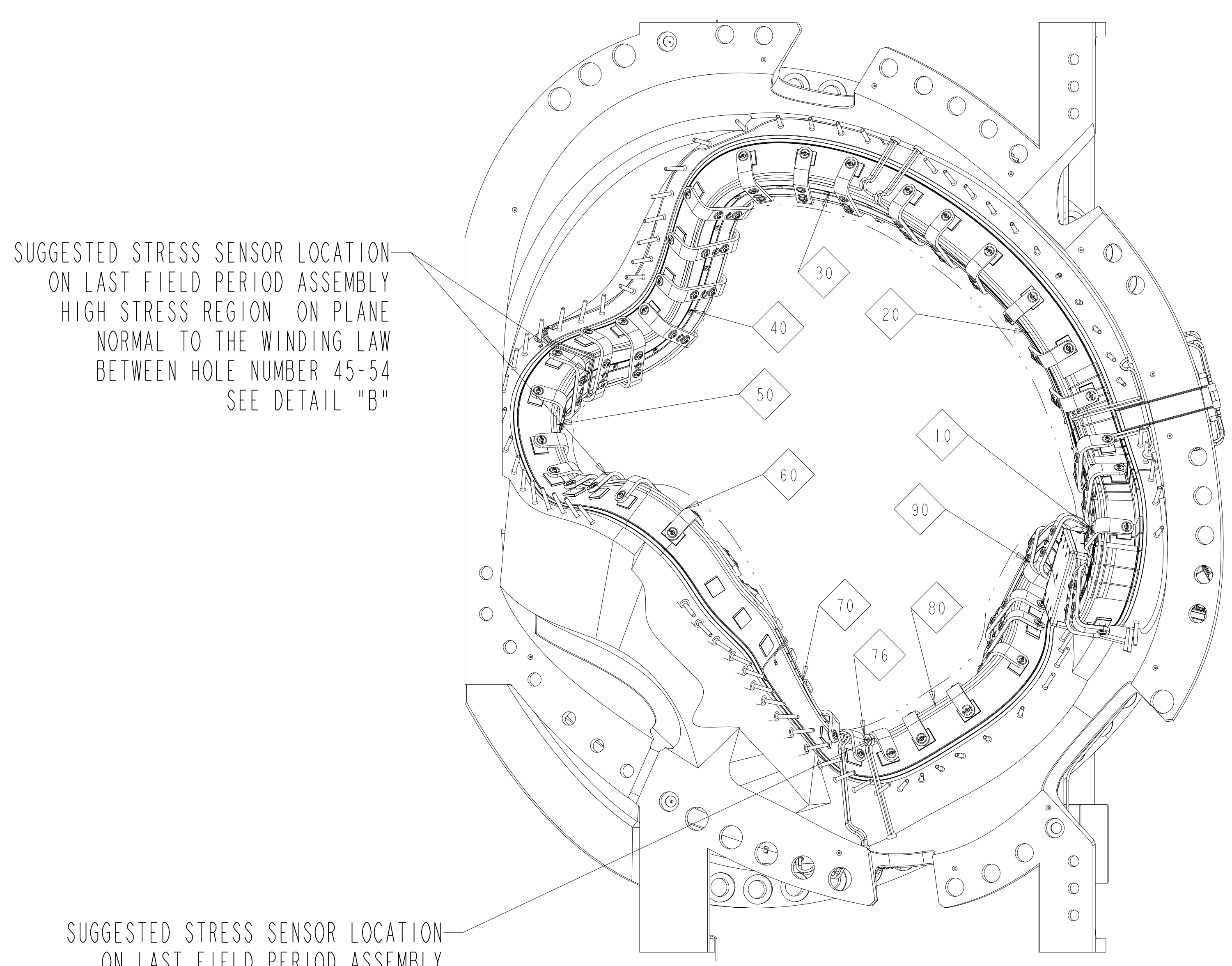
**VIEW OF WINDING FORM AT HOLE 46**  
SCALE .50

LOCATE STRAIN SENSORS AND LABEL AS SHOWN  
ON LAST FIELD PERIOD ASSEMBLY  
1 EACH ON TOP OF TEE (ie 46-T-TOP)  
2 EACH ON SIDE CHILL PLATE  
ie (SIDE A) 46-C-A AND (SIDE B) 46-C-B  
2 EACH ALONG FORM BELOW VPI GROOVE  
ie (SIDE A) 46-V-A AND (SIDE B) 46-V-B



**DETAIL C**  
SCALE 2.00

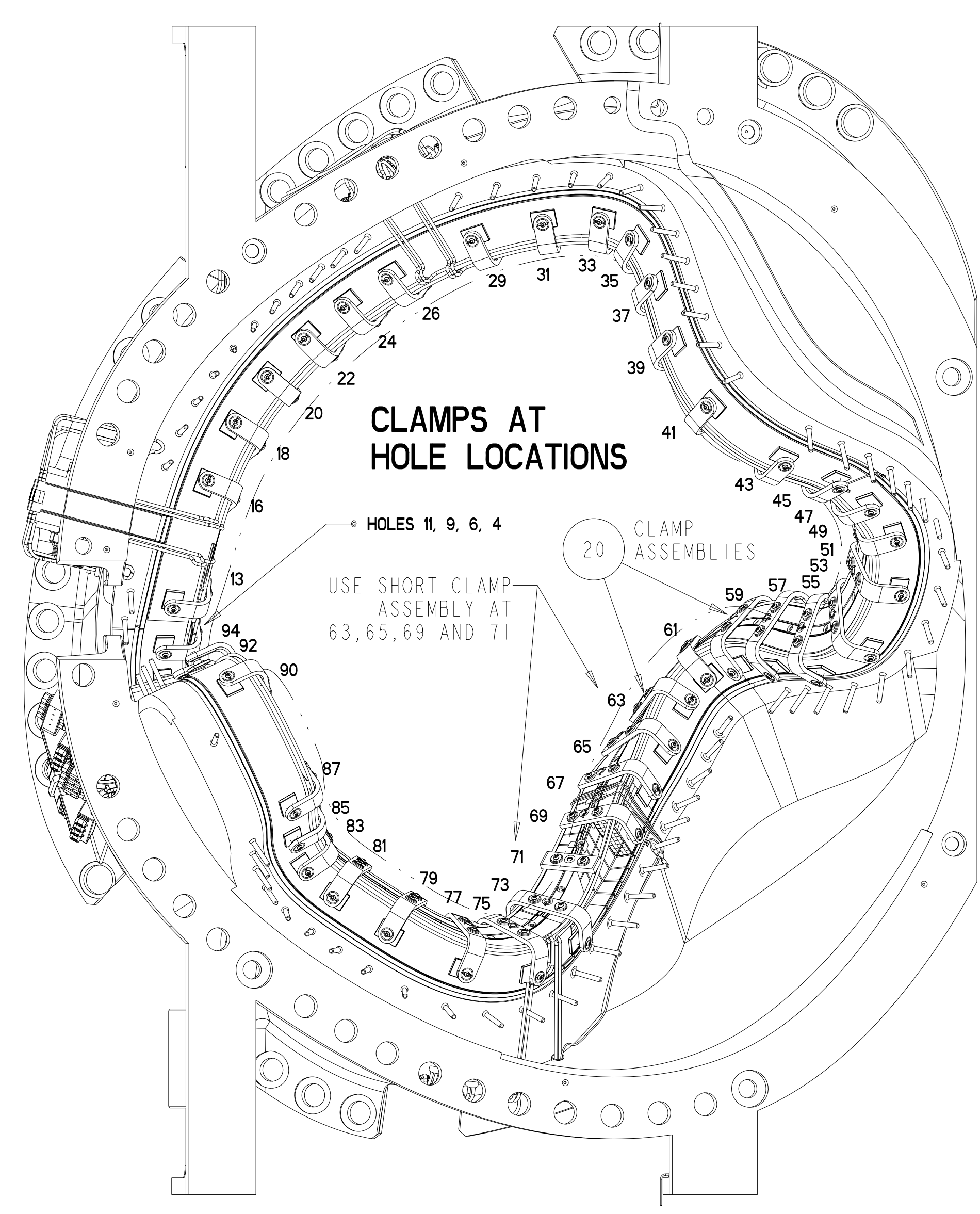
CLAMP CHART		
NO.	HOLE NO.	CLAMP ASSEMBLY
1	04	SE142C-270
2	06	SE142C-270
3	09	SE142C-270
4	11	SE142C-270
5	13	SE142C-270
6	16	SE142C-270
7	18	SE142C-270
8	20	SE142C-270
9	22	SE142C-270
10	24	SE142C-270
11	26	SE142C-270
12	29	SE142C-270
13	31	SE142C-270
14	33	SE142C-270
15	35	SE142C-270
16	37	SE142C-270
17	39	SE142C-270
18	41	SE142C-270
19	43	SE142C-270
20	45	SE142C-270
21	47	SE142C-270
22	49	SE142C-270
23	51	SE142C-270
24	53	SE142C-270
25	55	SE142C-270
26	57	SE142C-270
27	59	SE142C-270
28	61	SE142C-270
29	63	SE142C-303
30	65	SE142C-303
31	67	SE142C-270
32	69	SE142C-303
33	71	SE142C-308
34	73	SE142C-270
35	75	SE142C-270
36	77	SE142C-270
37	79	SE142C-270
38	81	SE142C-270
39	83	SE142C-270
40	85	SE142C-270
41	87	SE142C-270
42	90	SE142C-270
43	92	SE142C-270
44	94	SE142C-270



SUGGESTED STRESS SENSOR LOCATION  
ON LAST FIELD PERIOD ASSEMBLY  
HIGH STRESS REGION ON PLANE  
NORMAL TO THE WINDING LAW  
BETWEEN HOLE NUMBER 45-54  
SEE DETAIL "B"

SUGGESTED STRESS SENSOR LOCATION  
ON LAST FIELD PERIOD ASSEMBLY  
HIGH STRESS REGION ON PLANE  
NORMAL TO THE WINDING LAW  
BETWEEN HOLE NUMBER 67-76  
SEE DETAIL "B"

**SIDE "A" VIEW**  
SCALE .125



**CLAMPS AT HOLE LOCATIONS**

HOLE NO. 11, 9, 6, 4  
CLAMP ASSEMBLIES  
USE SHORT CLAMP ASSEMBLY AT 63, 65, 69 AND 71

**SIDE "B" VIEW**  
SCALE .125

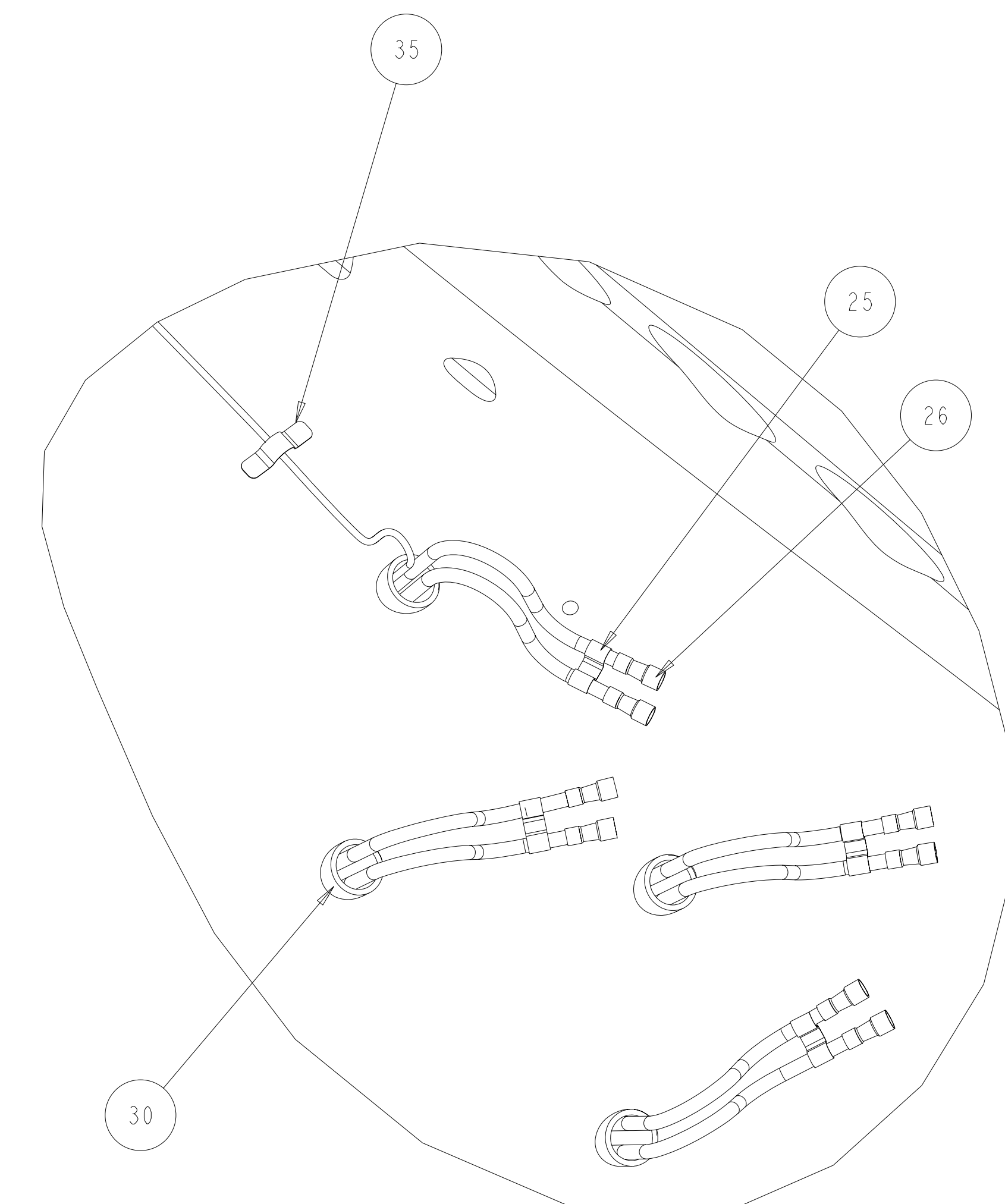
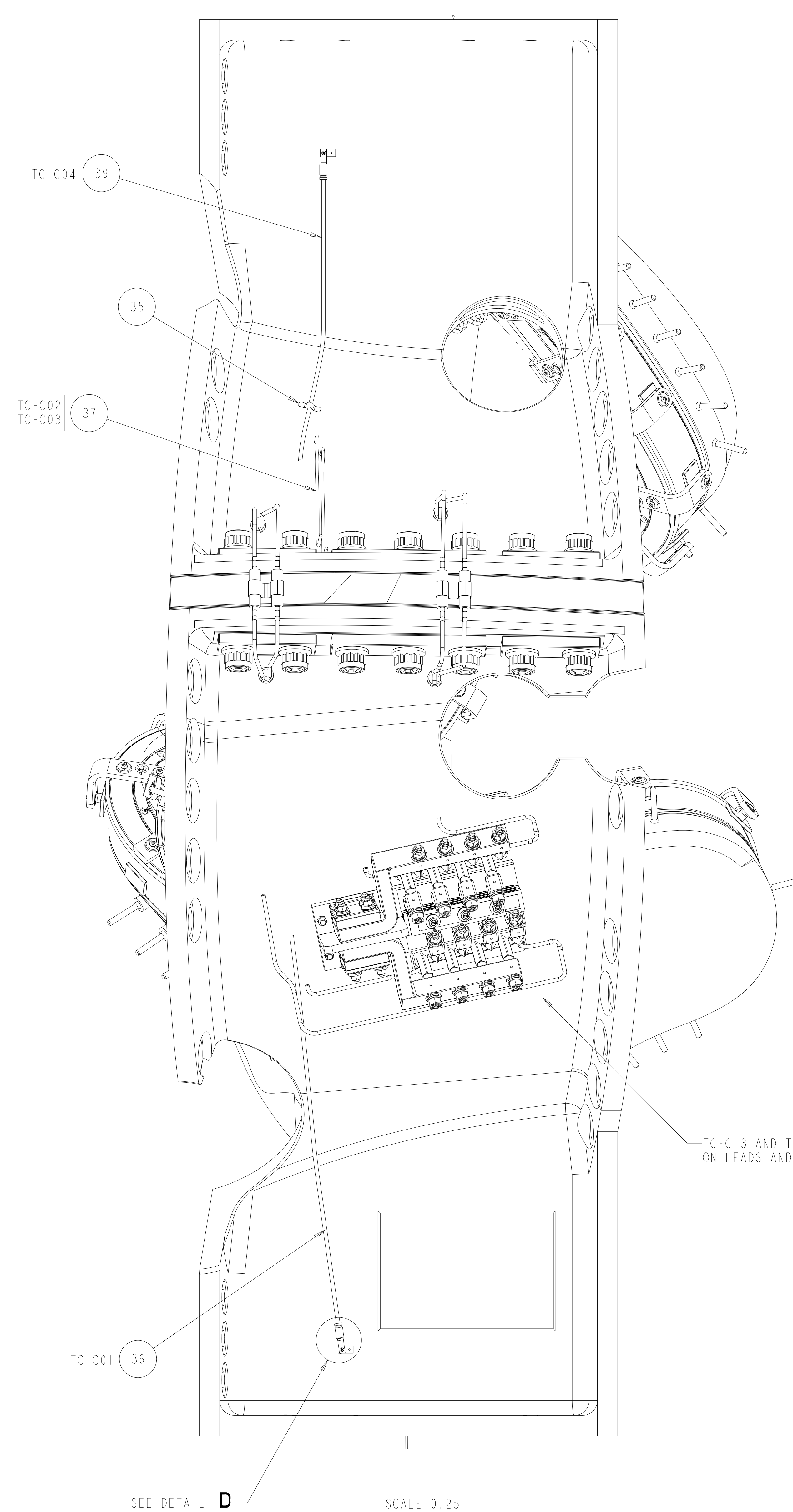
Oak Ridge National Laboratory  
managed for the DEPARTMENT OF ENERGY under  
U.S. GOVERNMENT contract DE-AC05-00OR22725  
UT-BATTELLE, LLC, Oak Ridge, Tennessee  
PROJECT NAME

**NATIONAL COMPACT STELLARATOR EXPERIMENT**

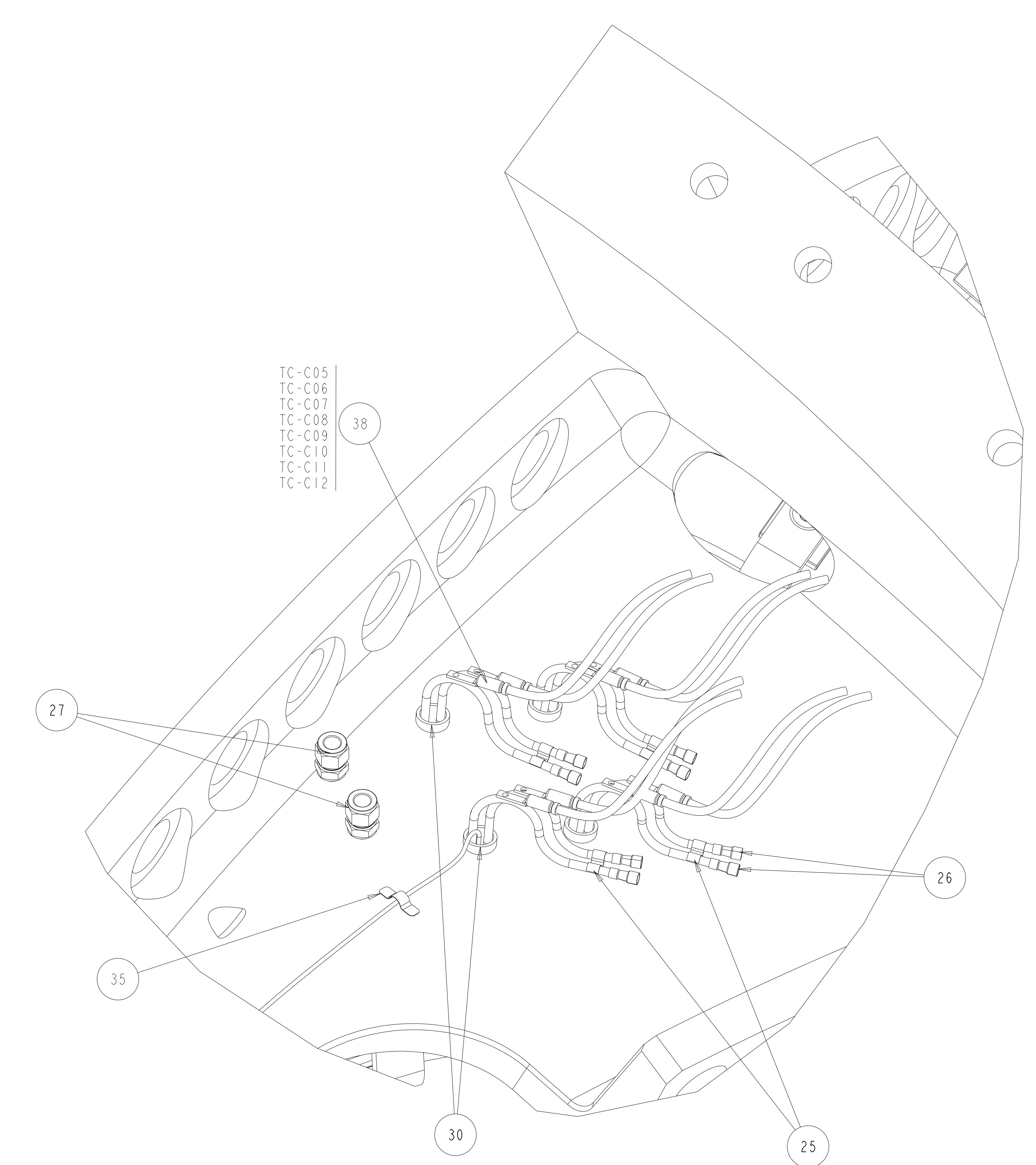
TYPE C MCWF  
FINAL COIL ASSEMBLY

VERSION NO. 46	PLANT ORNL	BLDG 5700	FL 3	SHT OF 2	TYPE 3	CLASS S
RELEASE LEVEL WIP	SE140-103					

U  
REV  
0

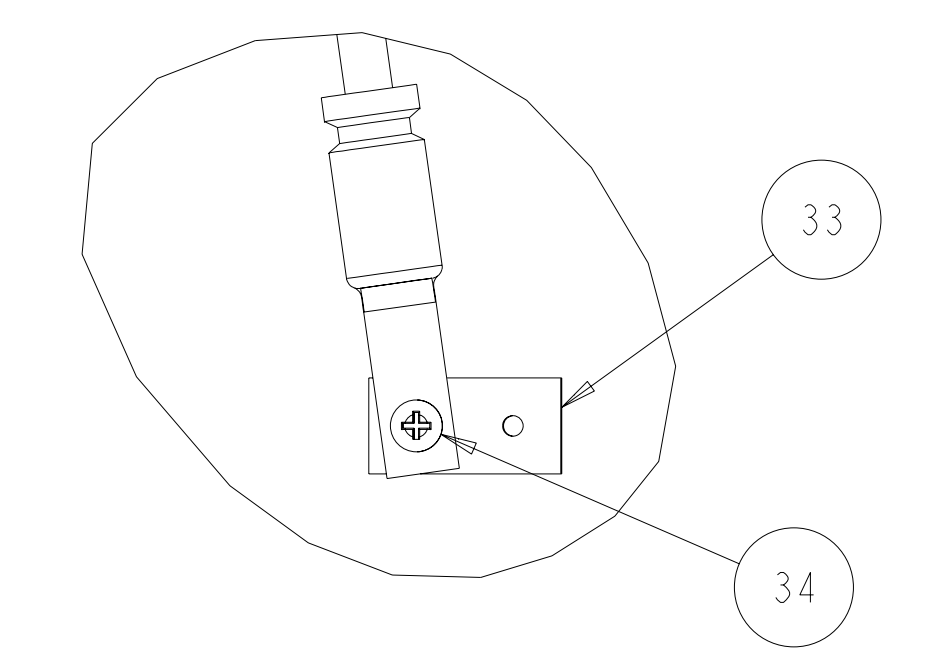


**PARTIAL BOTTOM VIEW**  
 SCALE 0.50



**PARTIAL TOP VIEW**  
 SCALE 0.50

THERMOCOUPLE CHART			
NO.	LABEL	LOCATION	LEAD LENGTH TO BUNDLE AT "A" COIL (IN)
1	TC-C01	OUTBOARD LOWER SUPPORT	182
2	TC-C02	OUTBOARD T/C HOLE	144
3	TC-C03	OUTBOARD T/C HOLE (DUPLICATE)	144
4	TC-C04	OUTBOARD UPPER SUPPORT	164
5	TC-C05	COOLING LINE OUTLET 1	174
6	TC-C06	COOLING LINE OUTLET 2	174
7	TC-C07	COOLING LINE OUTLET 3	174
8	TC-C08	COOLING LINE OUTLET 4	174
9	TC-C09	COOLING LINE OUTLET 5	174
10	TC-C10	COOLING LINE OUTLET 6	174
11	TC-C11	COOLING LINE OUTLET 7	174
12	TC-C12	COOLING LINE OUTLET 8	174
13	TC-C13	LEADS	164
14	TC-C14	LEADS	164



**DETAIL D** TYP 2 PLACES  
 SCALE 1.00

Oak Ridge National Laboratory  
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 U.S. GOVERNMENT contract DE-AC05-00OR22725  
 UT-BATTELLE, LLC, Oak Ridge, Tennessee  
 PROJECT NAME

**UT-BATTELLE**

**NATIONAL COMPACT STELLARATOR EXPERIMENT**

**TYPE C MCWF**  
**FINAL COIL ASSEMBLY**

VERSION NO.	PLANT	BLDG	FL	SHT OF	TYPE	CLASS
46	ORNL	5700	3	3 3	S	U
RELEASE LEVEL	SEI40-103					REV
WIP						0

H  
G  
F  
E  
D  
C  
B  
A

SEI40-103