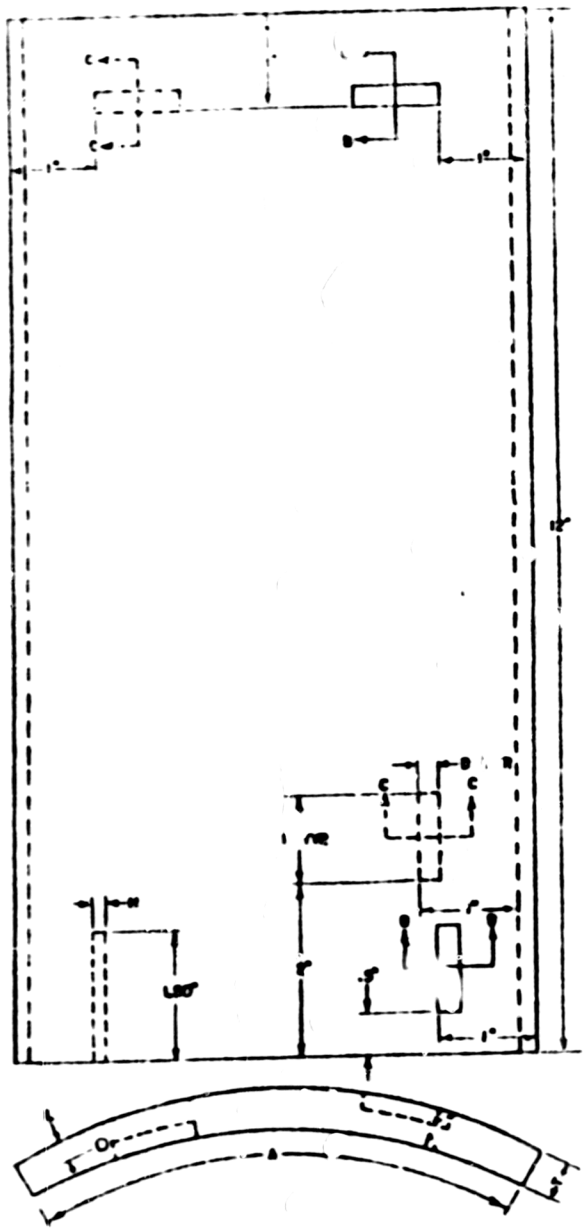
TABLE A
LIST OF CALIBRATION BLOCK DRAWINGS

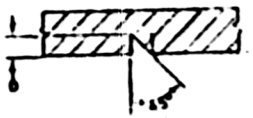
BLOCK NO.	DRAWING NO.	APPENDIX B PAGE NO.
WB-1	CH-M-2445-C	1
WB-2	CH-M-2445-C	1
WB-3	CH-M-2445-C	1
WB-4	CH-M-2445-C	1
WB-5	CH-M-2445-C	1
WB-6	CH-M-2460-B	3
WB-7	CH-M-2507-C	4
WB-8	CH-M-2507-C	4
WB-9	CH-M-2507-C	4
WB-10	CH-M-2553-C	7
WB-11	CH-M-2593-C	11
WB-12	CH-M-2553-C	7
WB-13	CH-M-2571-C	8
WB-14	CH-M-2550-C	5
WB-15	CH-M-2552-C	6
WB-16	CH-M-2591-B	10
WB-17	CH-M-2571-C	8
WB-18	CH-M-2571-C	8
WB-19	CH-M-2571-C	8
WB-20	CH-M-2589-B	9
WB-21	CH-M-2571-C	8
WB-23	CH-M-2597-C	12
WB-24	CH-M-2597-C	12
WB-25	CH-M-2597-C	12
WB-26	CH-M-2597-C	12
WB-27	CH-M-2597-C	12
WB-29	CH-M-2591-B	10
WB-30	CH-M-2591-B	10
WB-31	CH-M-2597-C	12
WB-32	CH-M-2597-C	12
WB-33	CH-M-2638-C	
WB-34	CH-M-2638-C	
WB-35	CH-M-2597-C	12
WB-36	CH-M-2597-C	12
WB-37	CH-M-2678-B	13
WB-38	CH-M-2742-C	14
WB-39	CH-M-2771-C	15
WB-ET-1	CH-M-2447-B	2
7-1-8-CS-3-WAB	D-5420 032 (SWRI)	22
[illegible]5-7-8-CS-4-WAB	D-5420 033 (SWRI)	23
10-59-2	D-5420 037 (SWRI)	25
IR-CSCL-2-WAB	D-5420 031 (SWRI)	21
NS-CSCL-1-WAB	D-5420 030 (SWRI)	20
Q-7053 1 of 2		
Q-7053 2 of 2	D-5420 035 (SWRI)	24
TO 4519		
TO 7216		
WAT-UT-01	D-5420 022 (SWRI)	17
WAT-UT-02	D-5420 026 (SWRI)	19
WAT-UT-03	D-5420 025 (SWRI)	18
WAT-UT-05	D-5420 021 (SWRI)	16
WAT-UT-06	2414 [illegible]-7 (RDM)	26
C&L Special #1	E4-144	28
		29



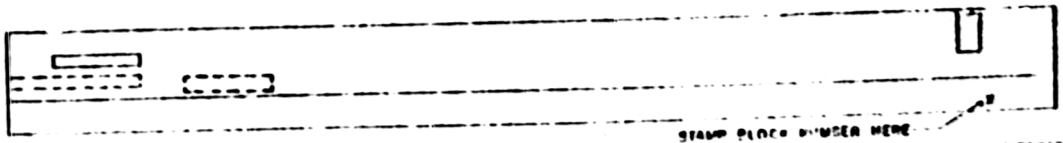
BLOCK NO.	DIA.	T	D	A	H	L
XX-1*	6	0.681	0.034	120°	3/32	1/2 T
XX-2	6	0.878	0.044	120°	3/32	1/2 T
XX-3	12	1.126	0.056	120°	1/8	1/4 T
XX-4	16	0.827	0.041	120°	3/32	1/2 T
XX-5	32	1.434	0.072	60°	1/8	1/4 T

* NOTE:
SUBSTITUTE SQ FOR SEQUOYAH NUCLEAR PLANT OR WB FOR WATTS BAR NUCLEAR PLANT IN PLACE OF THE XX IN THE BLOCK NUMBER.

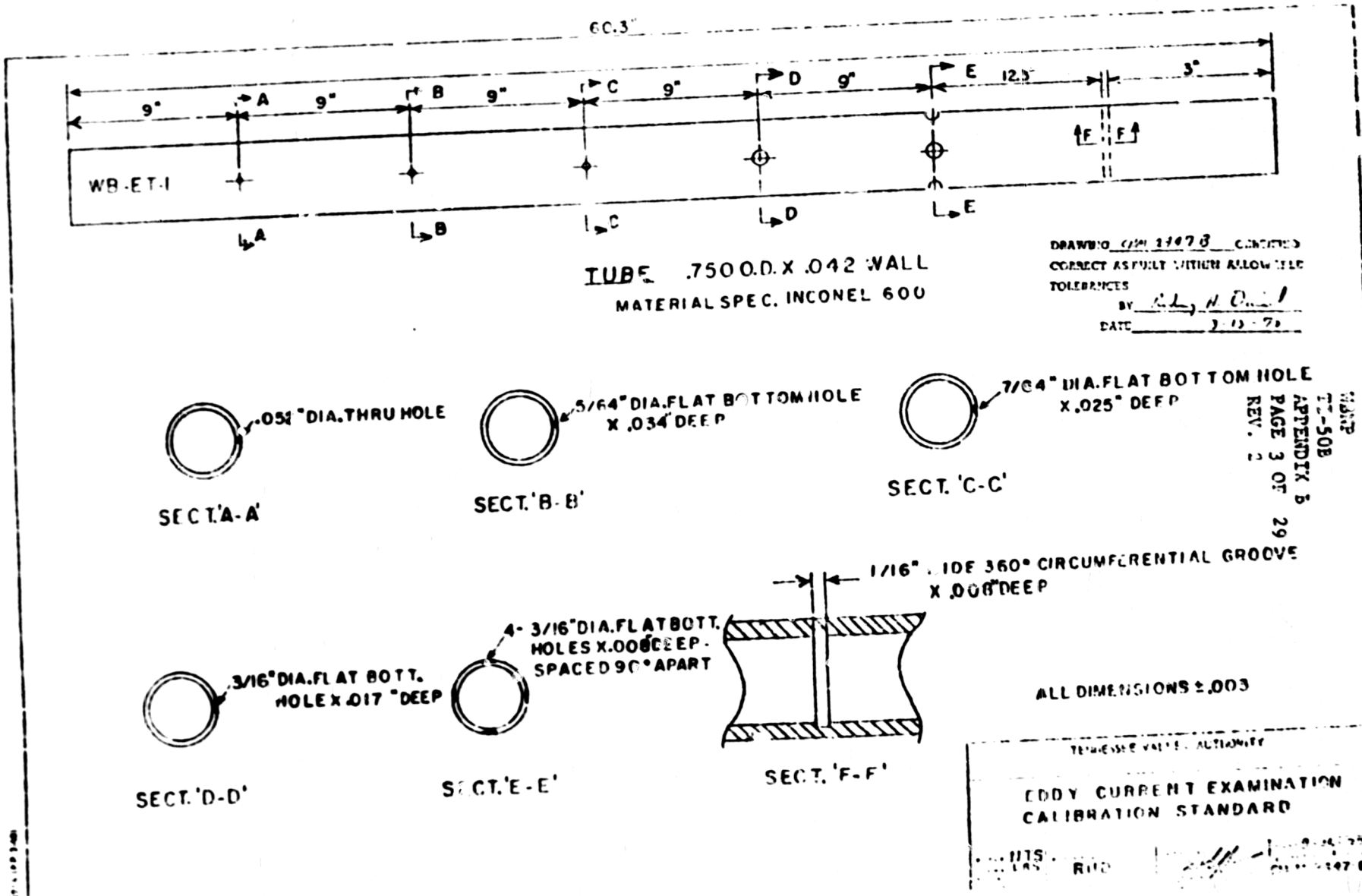
SECTION B-B



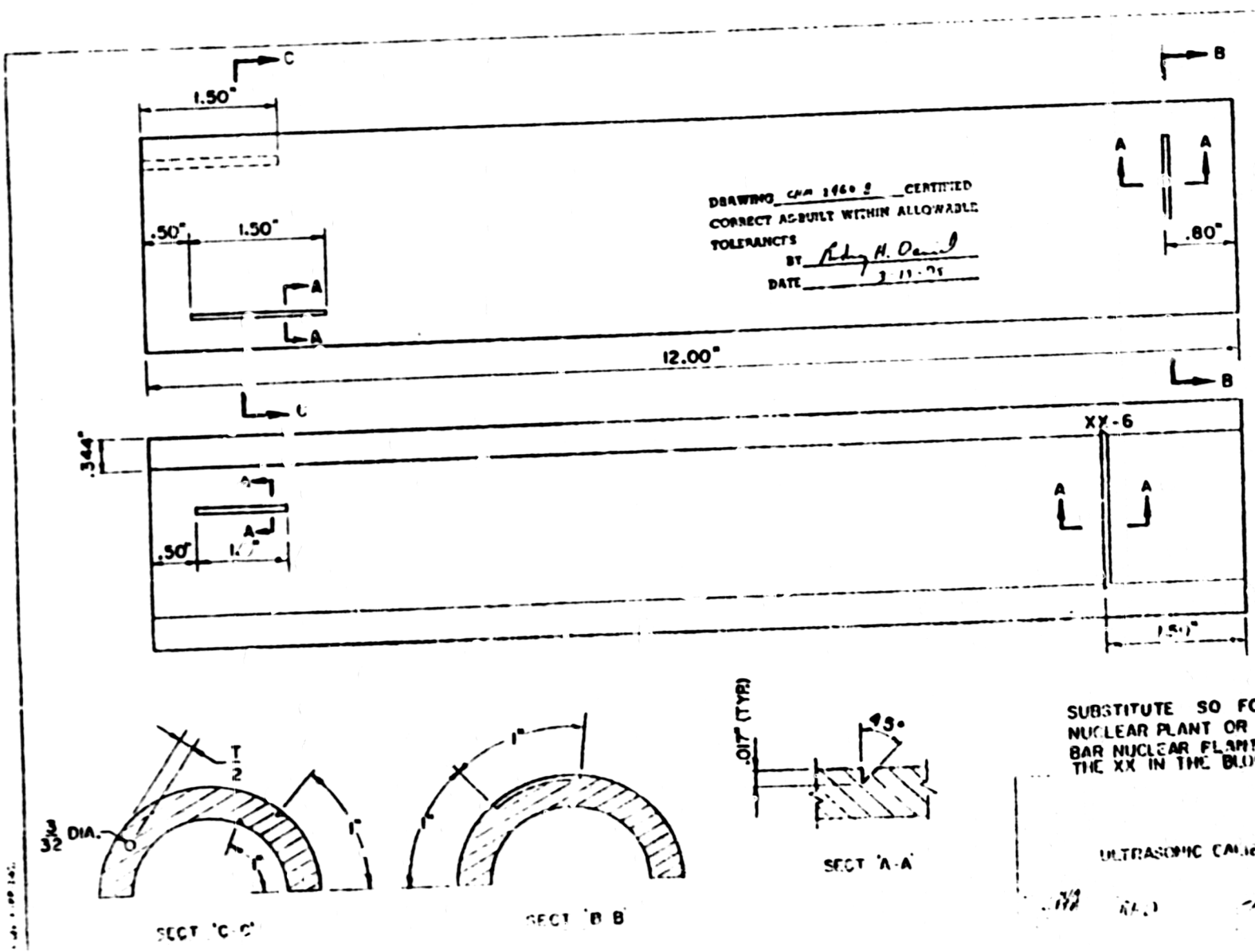
SECTION C-C



ULTRASONIC CALIBRATION BLOCKS

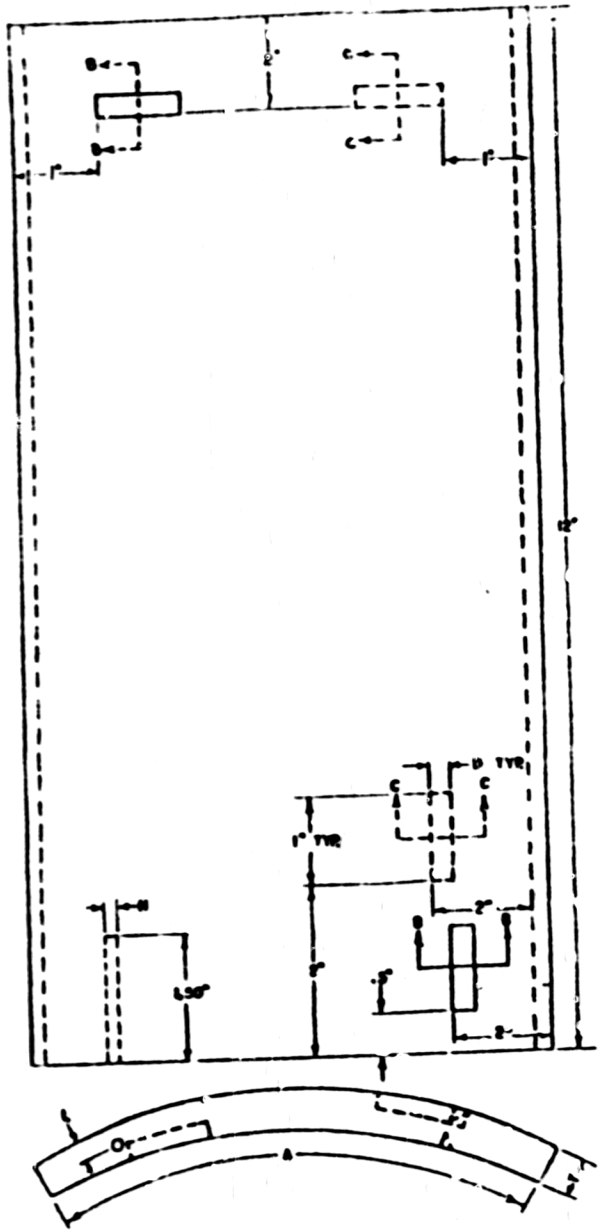


WBRP
TC-50B
APPENDIX B
PAGE 3 OF 29
REV. 2



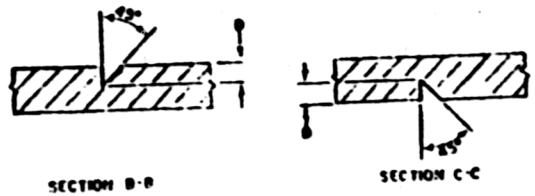
SUBSTITUTE SQ FOR SEQUOYAH NUCLEAR PLANT OR WB FOR WATTS BAR NUCLEAR PLANT IN PLACE OF THE XX IN THE BLOCK NUMBER.

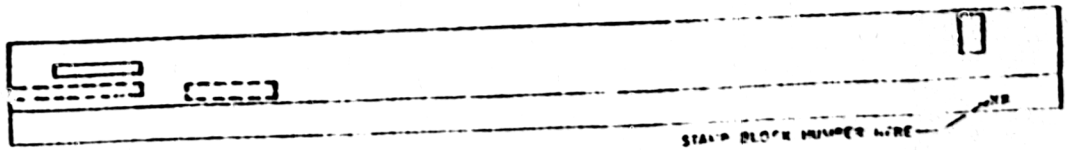
ULTRASONIC CALIBRATION BLOCK

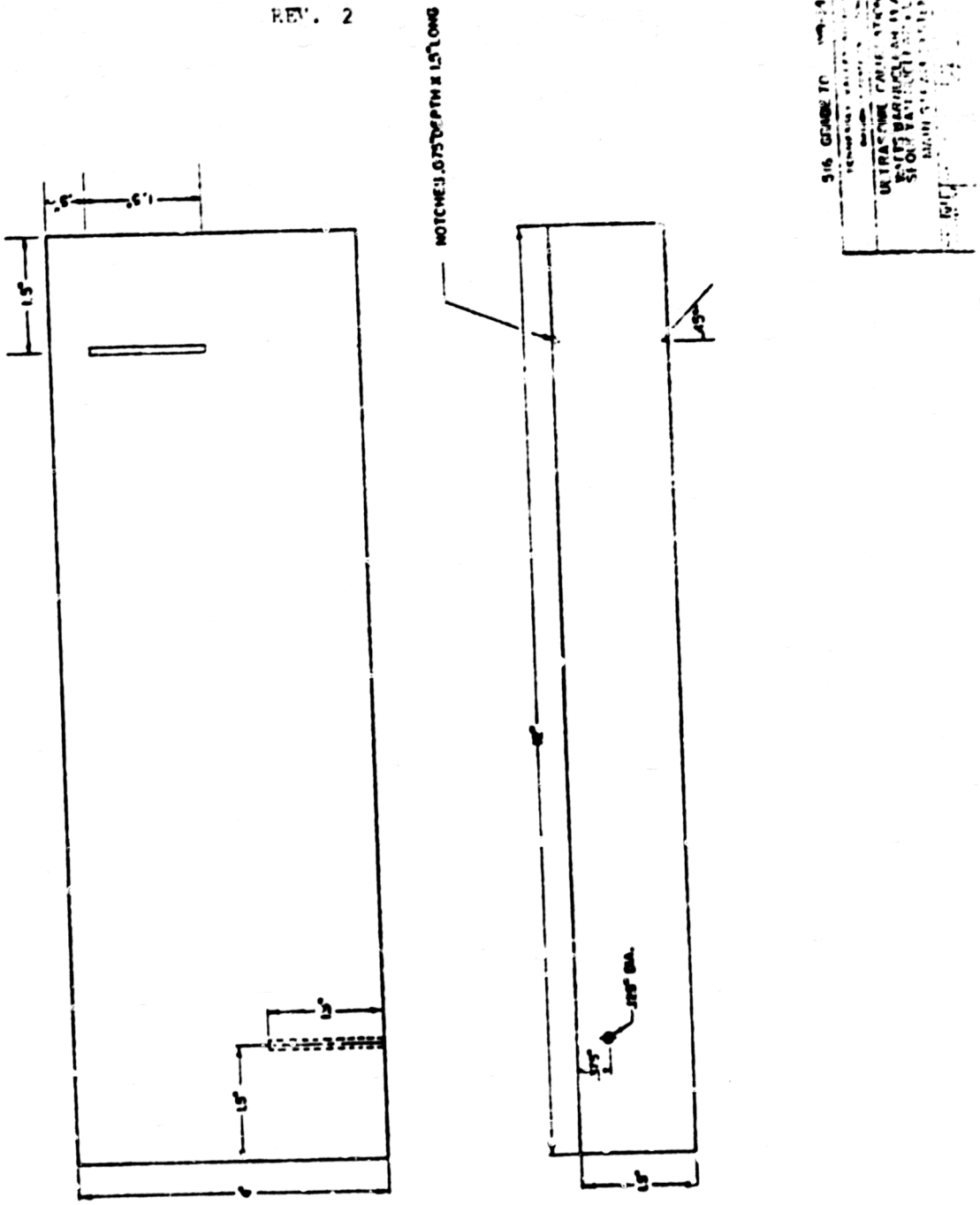


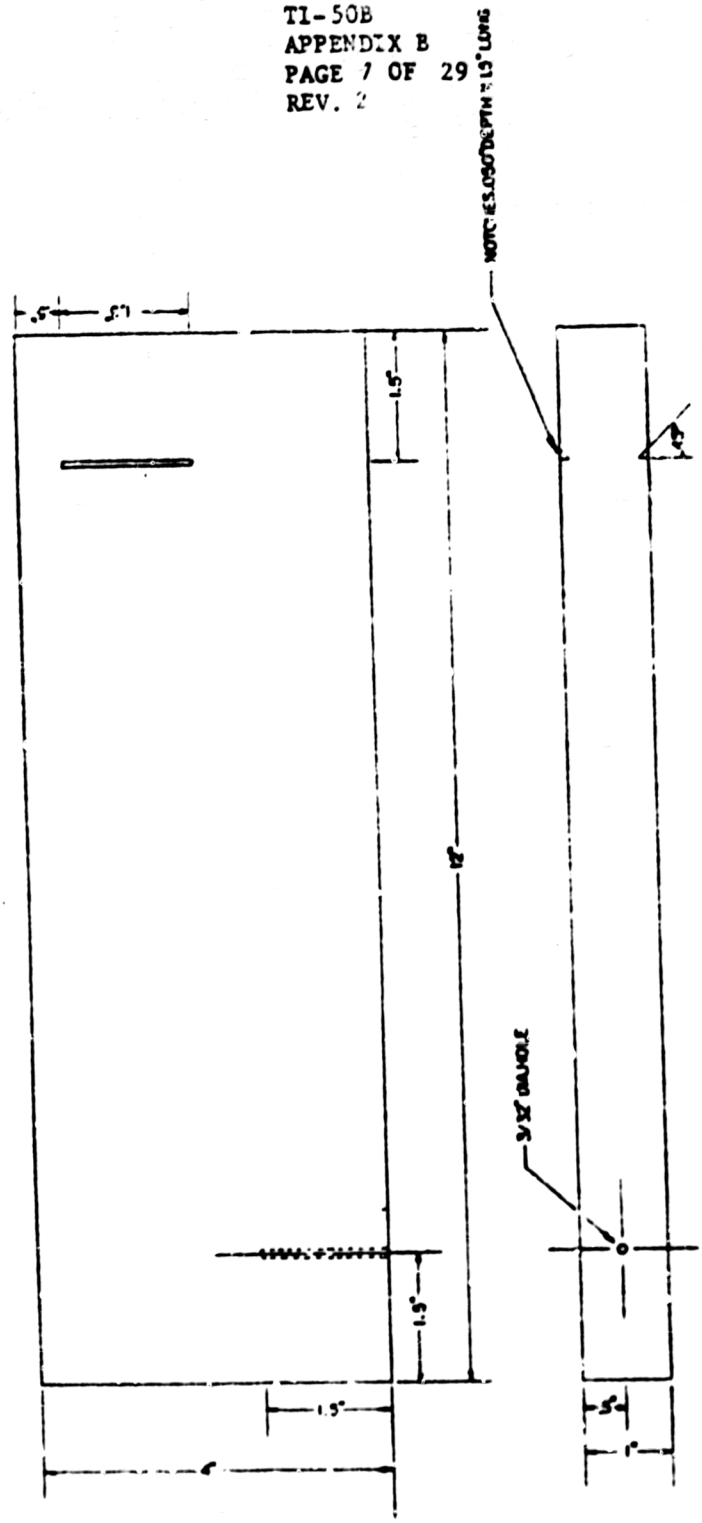
BLOCK NO	DIA	T	D	A	H	L
XX-7	8"	0.75	0.038	120°	3/32	1/2 T
XX-8	12"	0.75	0.038	120°	3/32	1/2 T
XX-9	8"	0.309	0.015	120°	3/32	1/2 T

* NOTE:
SUBSTITUTE SQ FOR SEQUOYAH NUCLEAR PLANT OR WB FOR WATTS BAR NUCLEAR PLANT IN PLACE OF THE XX IN THE BLOCK NUMBER.



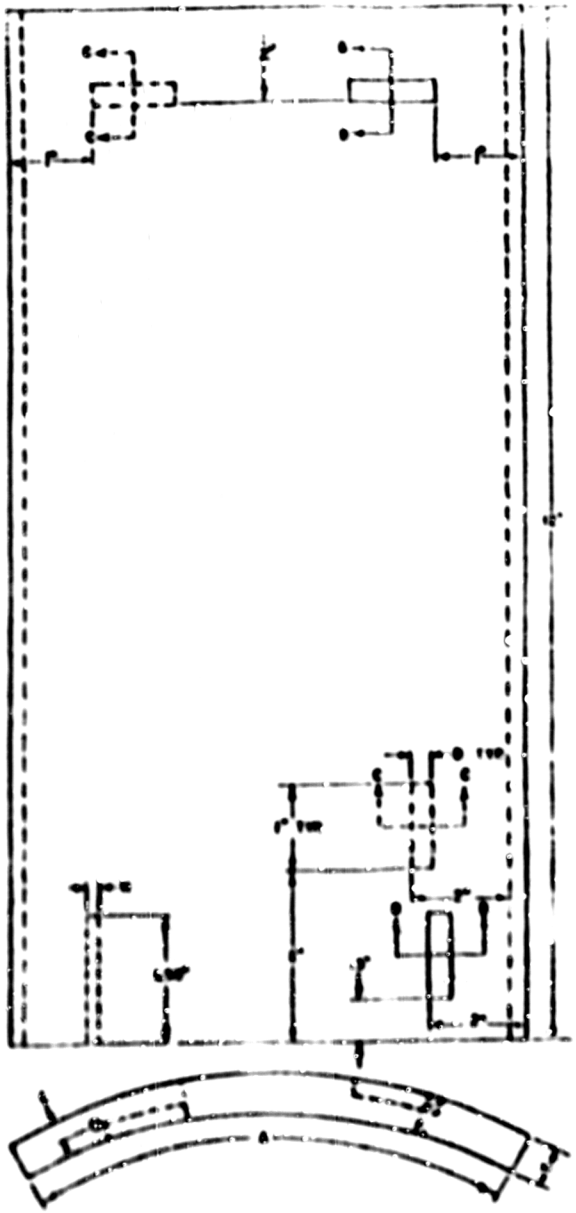


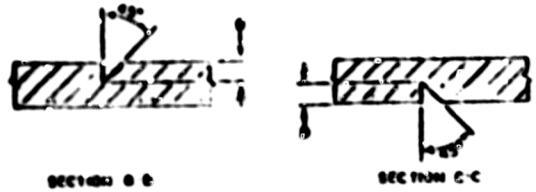

NOTCHES .075" DEPTH X 1.5" LONG
1.5"
45°

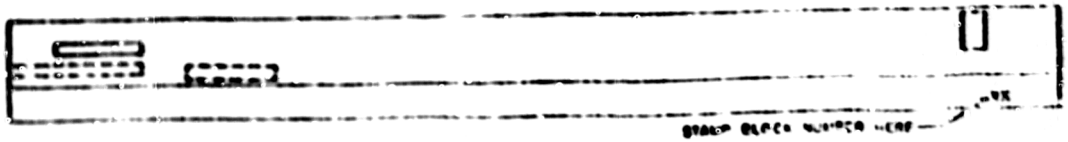

NOTCHES .050" DEPTH x 1.5" LONG
1.5"
12"
1.5"
1.5"
4"
.5"
1"

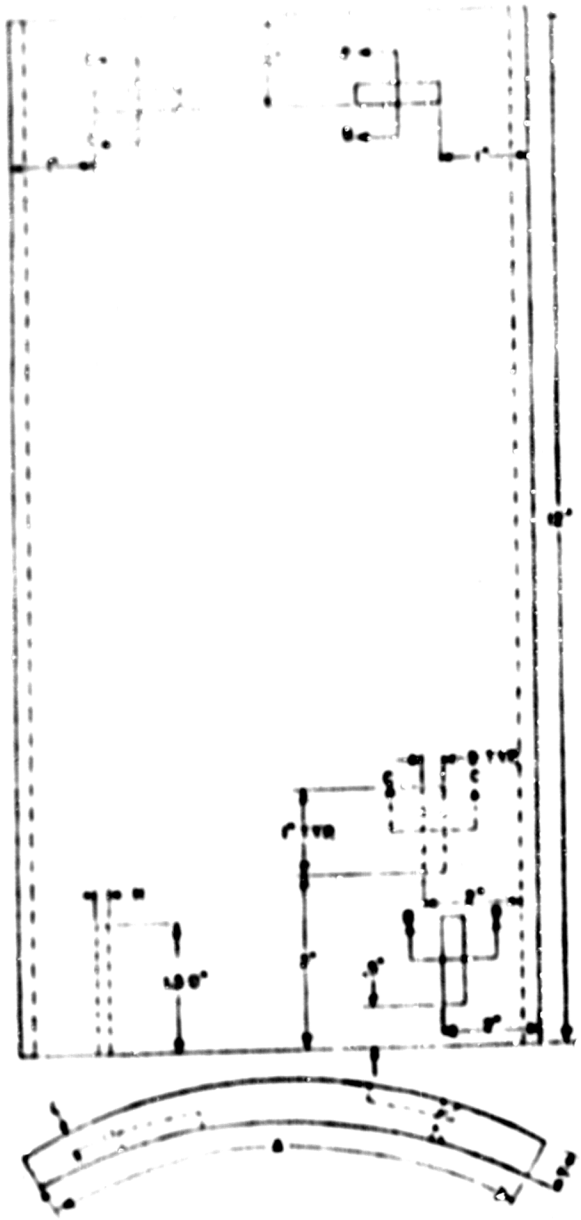
BLOCK NO	DIA	T	D	A	N	L
RE-10	14"	1.362	0.069	120°	1/8	1/4T
RE-12	2 1/2"	0.415	0.021	180°	3/32	1/2T

* NOTE:
SUBSTITUTE 90 FOR SEQUOYAH NUCLEAR PLANT OR 98 FOR WATTS BAR NUCLEAR PLANT IN PLACE OF THE 89 IN THE BLOCK NUMBER



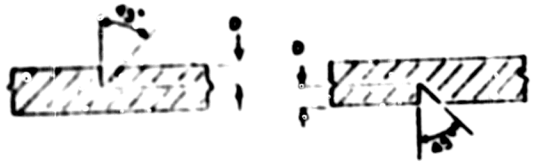






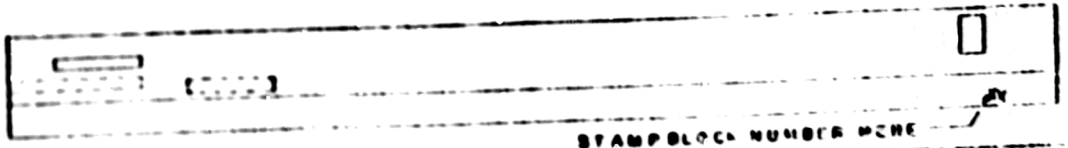
BLOCK NO.	DIA	T	D	A	H	L
BB-3	4"	0.438	0.022	180°	3/32	1/2 T
BB-17	8"	0.825	0.031	180°	3/32	1/2 T
BB-18	16"	0.938	0.047	120°	3/32	1/2 T
BB-19	6"	0.864	0.043	180°	3/32	1/2 T
BB-21	10"	2.500	0.075	180°	1/8	1/4T

NOTE: SUBSTITUTE SQ FOR SEQUOYAH NUCLEAR PLANT OR WB FOR WATTS BAR NUCLEAR PLANT IN PLACE OF THE BB IN THE BLOCK NUMBER



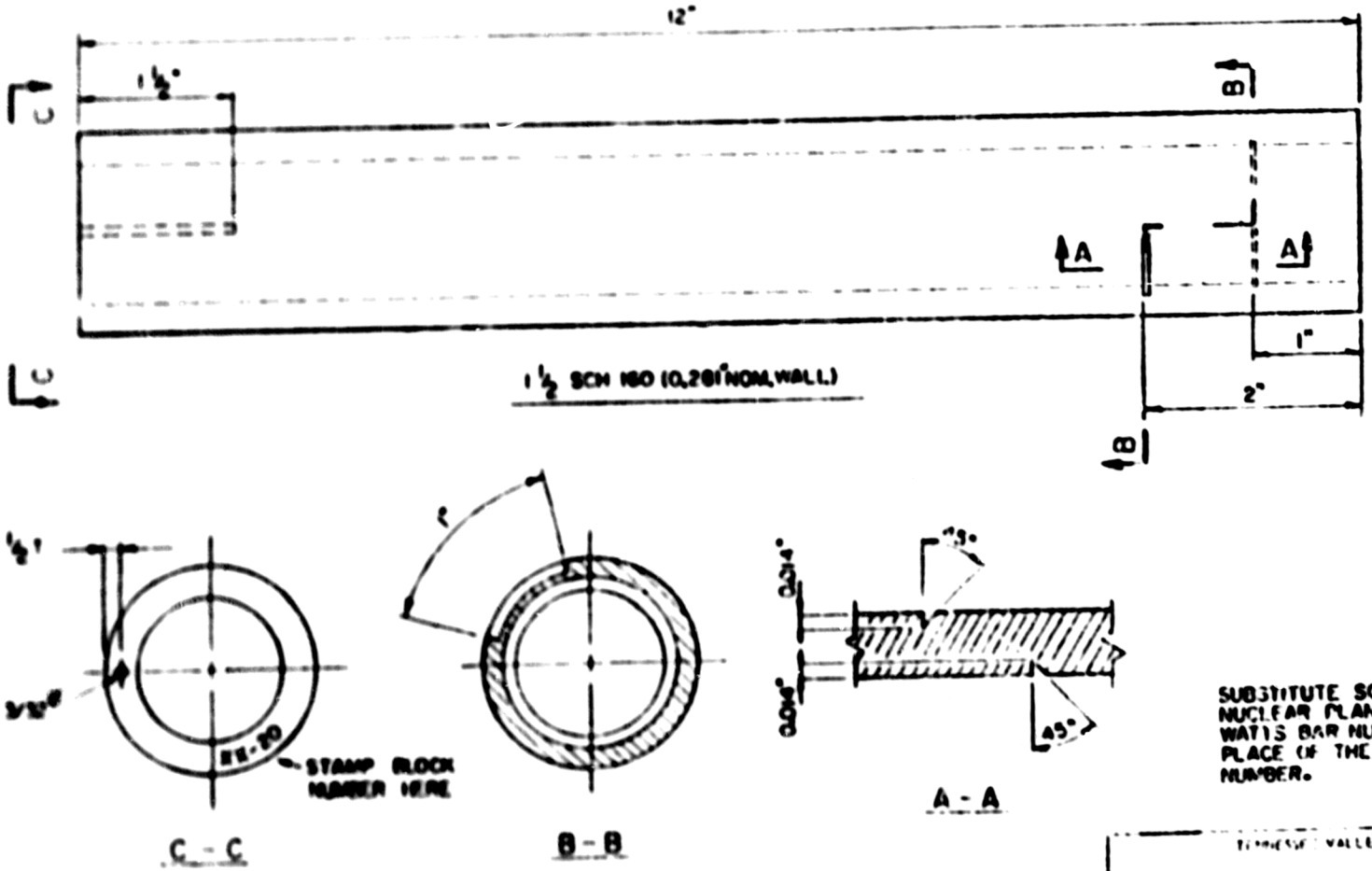
SECTION B-B

SECTION C-C



STAMP BLOCK NUMBER HERE

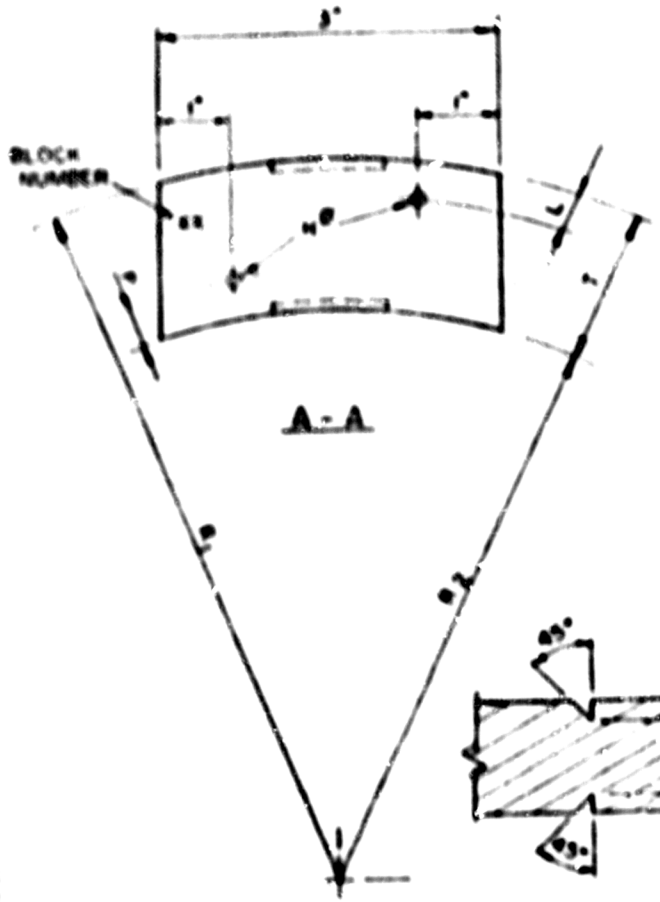
ULTRASONIC CALIBRATION BLOCKS

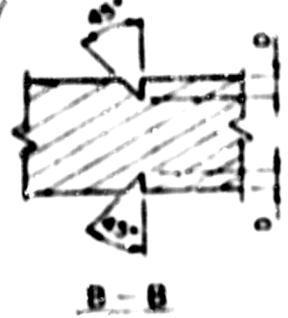


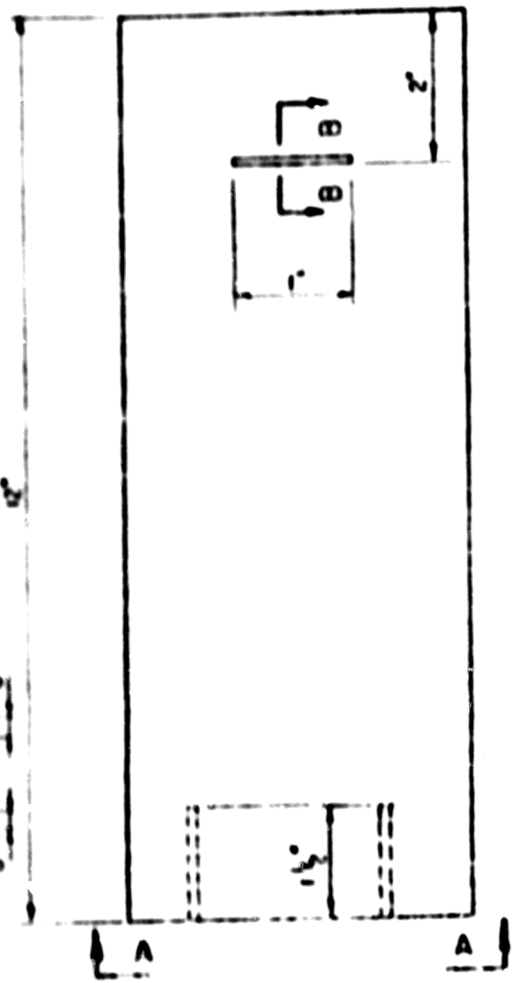
SUBSTITUTE SQ FOR SEQUOYAH NUCLEAR PLANT OR WB FOR WATTS BAR NUCLEAR PLANT IN PLACE OF THE XX IN THE BLOCK NUMBER.

TENNESSEE VALLEY AUTHORITY

ULTRASONIC CALIBRATION BLOCK







BLOCK NUMBER	R_1	R_2	D	T	L	H	P
XX-16	6.375	5.063	0.066	1.312	1/4 T	1/8	1/4T
XX-29	4.200	3.000	0.060	1.200	1/4 T	1/8	1/4T
XX-30	2.300	2.000	0.045	0.300	1/2 T	3/32	NA

SUBSTITUTE SQ FOR SEQUOYAH NUCLEAR PLANT OR WB FOR WATTS BAR NUCLEAR PLANT IN PLACE OF THE XX IN THE BLOCK NUMBER.

FABRICATE FROM S.S. PLATE.

TENNESSEE VALLEY AUTHORITY

ULTRASONIC CALIBRATION BLOCKS

NTS

WSNP
TI-505
APPENDIX B
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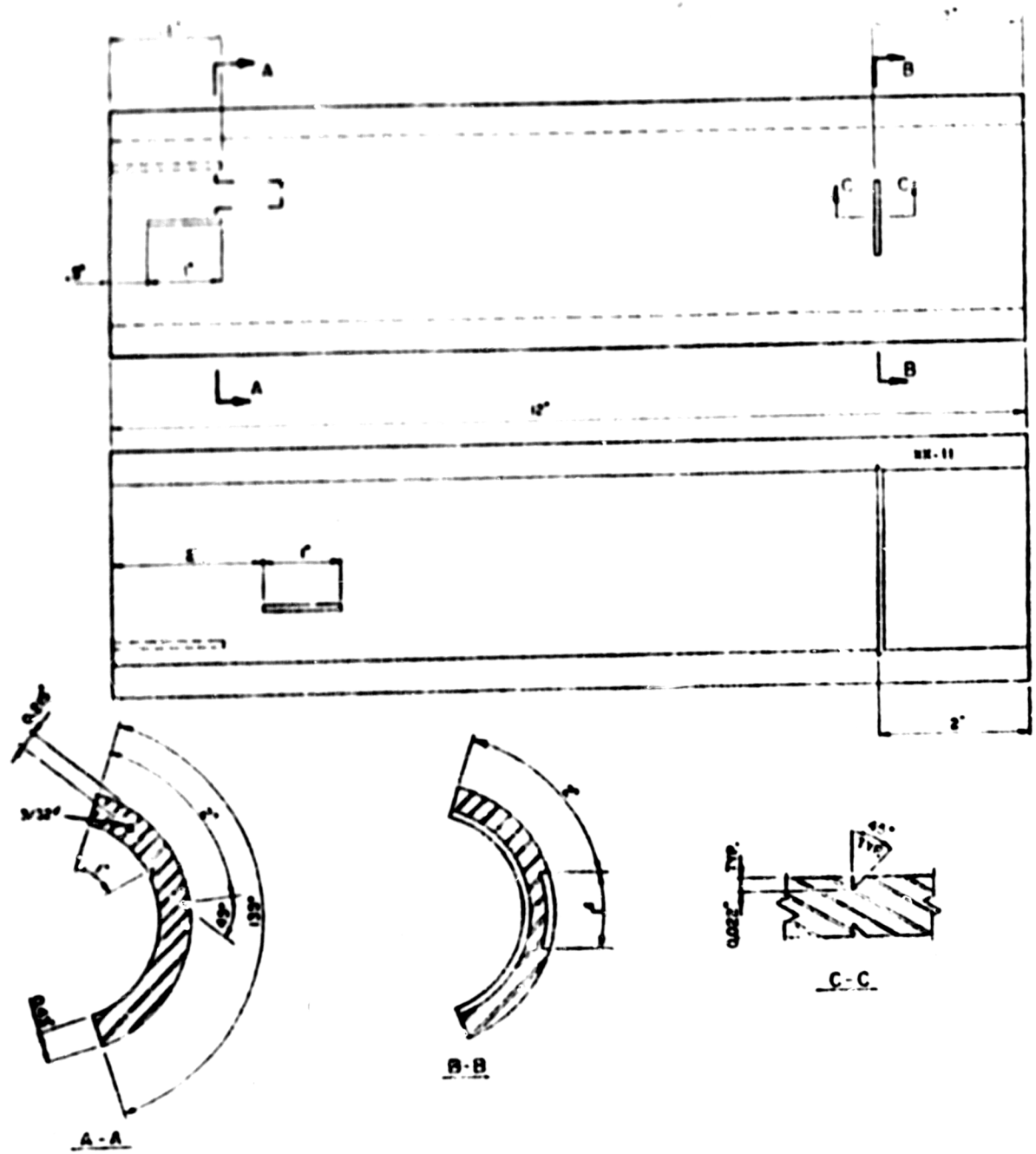
REV. 2

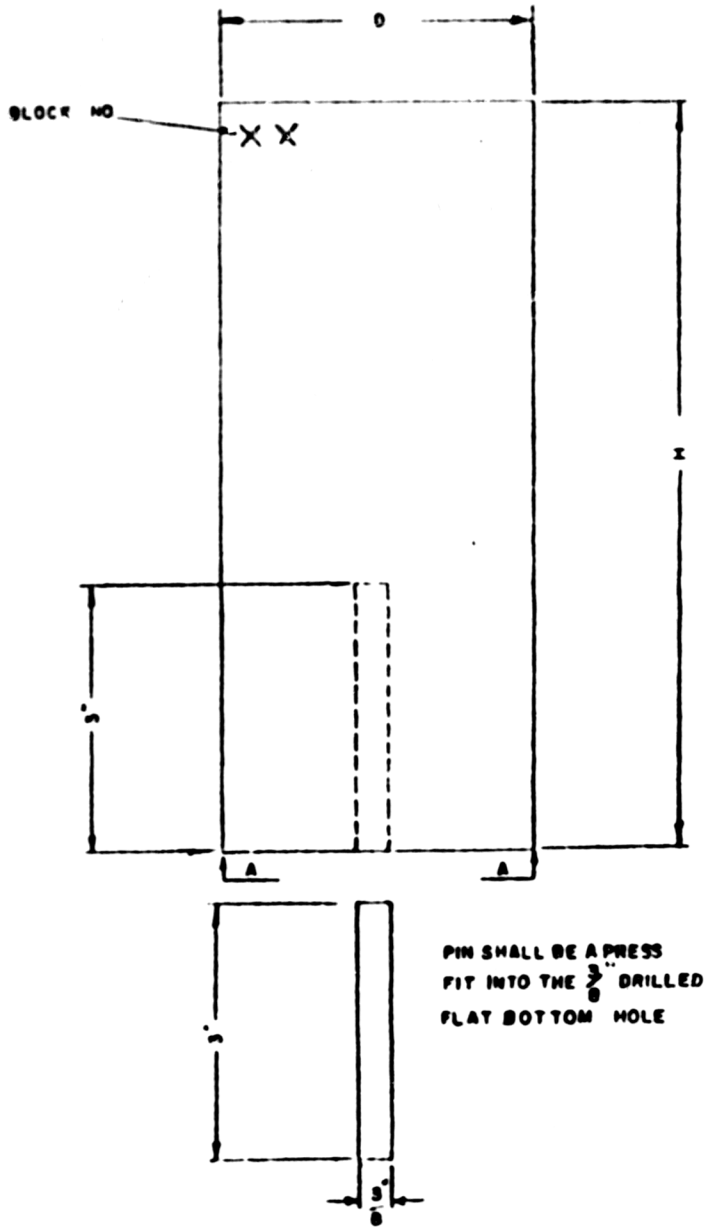


NOTES:

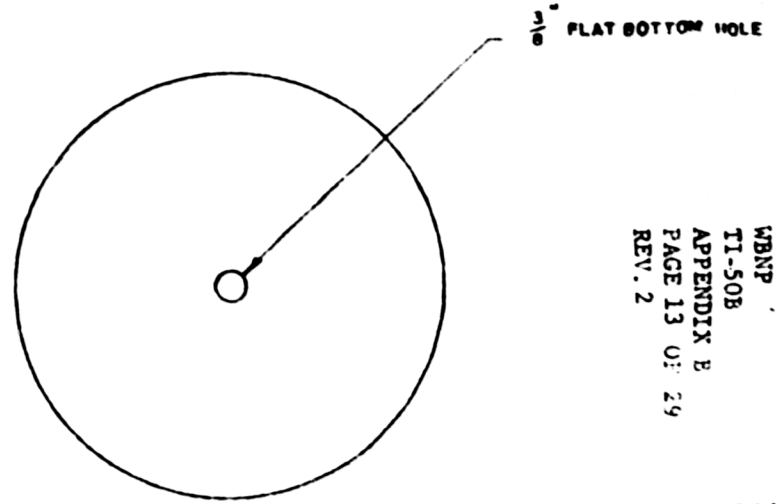
1. MAT'L: 3" SCH 160 PIPE SS.
2. SUBSTITUTE SO FOR SEQUOYAH NUCLEAR PLANT OR WB FOR WATTS BAR NUCLEAR PLANT IN PLACE OF THE XX IN THE BLOCK NUMBER.

TENNESSEE VALLEY AUTHORITY
DIVISION OF PROJECT MANAGEMENT

REACTOR CALIBRATION BLOCK XX-11



PIN SHALL BE A PRESS FIT INTO THE 3/8" DRILLED FLAT BOTTOM HOLE



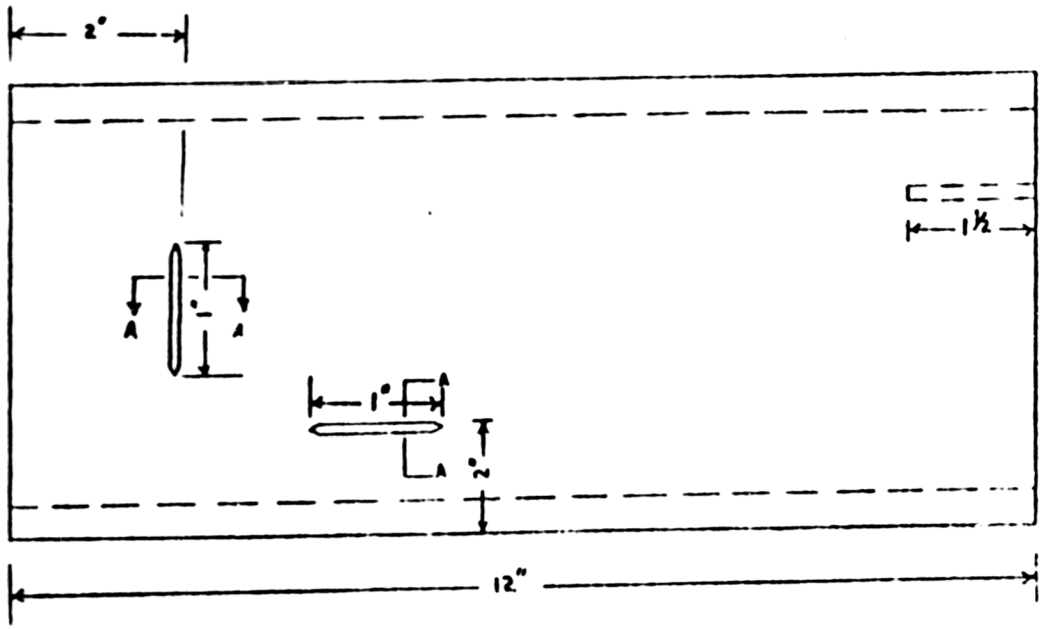
A-A

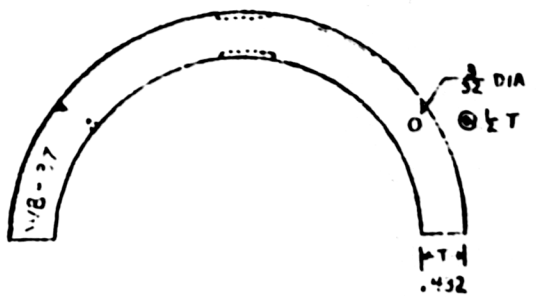
NOTE: 1. PIN SHALL BE SAME MATERIAL AS ROLLED STOCK
2. SUBSTITUTE SQ FOR SEQUOYAH NUCLEAR PLANT OR WB FOR WATTS BAR NUCLEAR PLANT IN PLACE OF THE XX IN THE BLOCK NUMBER

BLOCK	D	H	MATERIAL
XX 23	1 3/8"	17"	SA-A3 GRDT
XX 24	1 1/4"	5"	SA-A3 GRDT
XX 25	1 1/8"	10 1/2"	SA-A3 GRDT
XX 26	4 1/2"	30 1/2"	SA-A3 GRDT
XX 27	2"	8"	SA-A3 GRDT
XX 31	1 1/8"	7 1/2"	A151-4140
XX 32	1 1/4"	10"	A151-4140
XX 33	1 3/8"	6"	A151-4140
XX 34	1 1/8"	10 3/4"	A151-4140

TENNESSEE VALLEY AUTHORITY
DIVISION OF POWER PRODUCTION

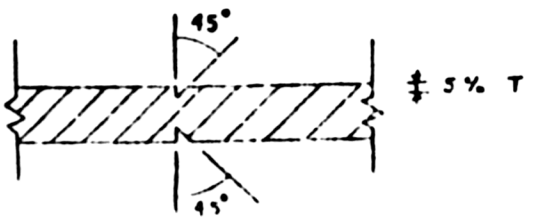
STUD AND BOLT CALIBRATION BLOCK





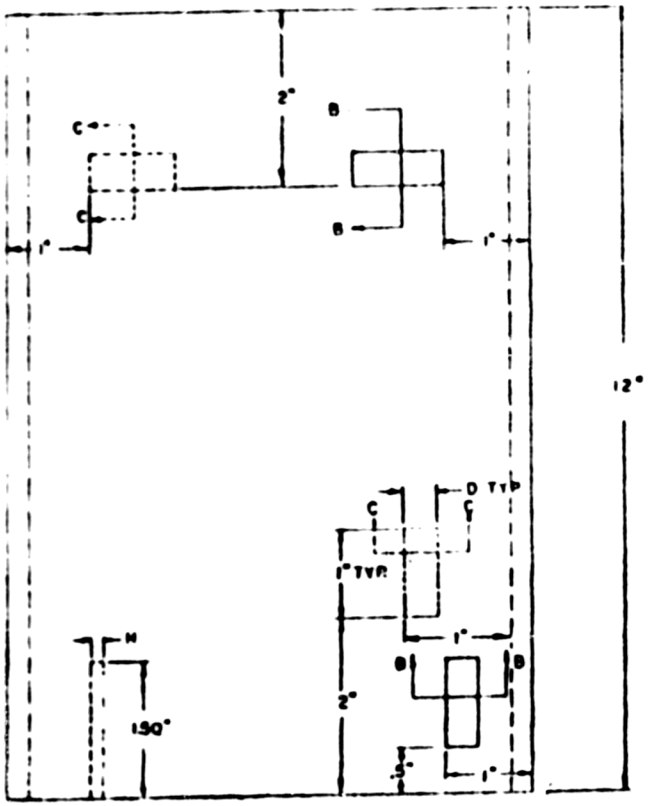
SA-53 GR B

SECTION A-A

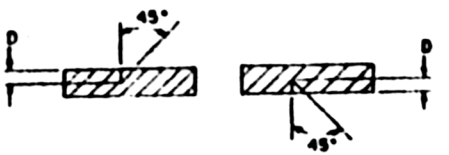


TENNESSEE VALLEY AUTHORITY
DIVISION OF POWER PRODUCTION

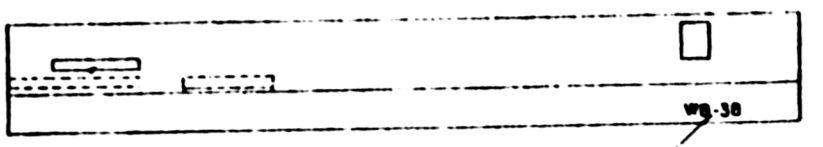
6" SCH 80
UT PIPE CALIBRATION BLOCK WD



BLOCK NO.	DIA.	T	D	A	H	L
WB 38	8"	0.500	0.025	120°	3/32	1/2 T



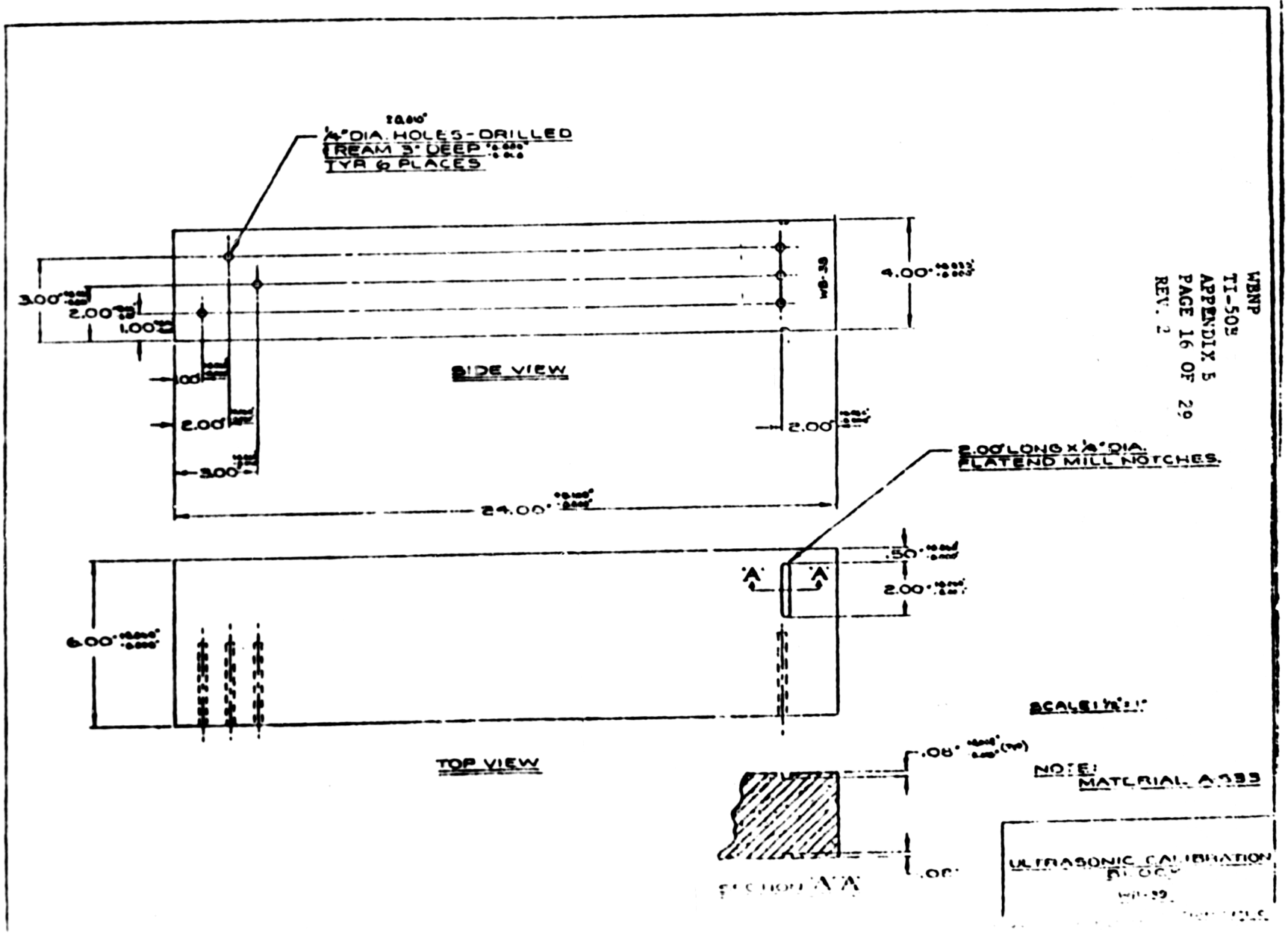
SECTION B-B SECTION C-C

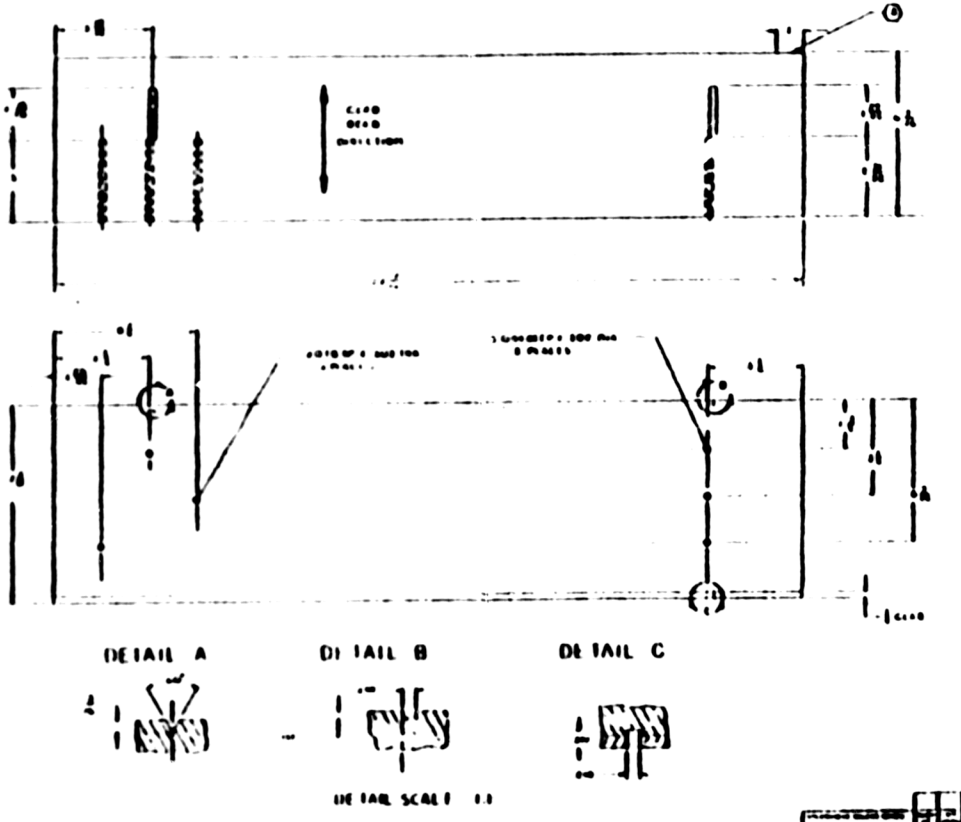


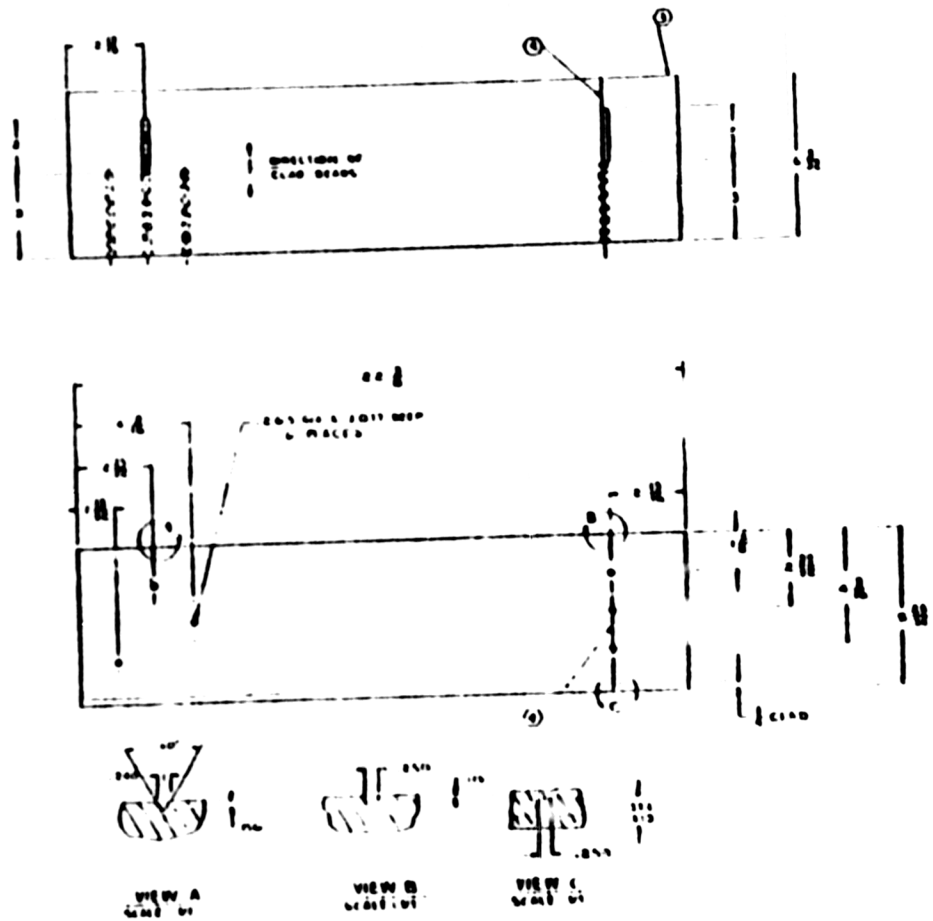
STAMP BLOCK NO. HERE

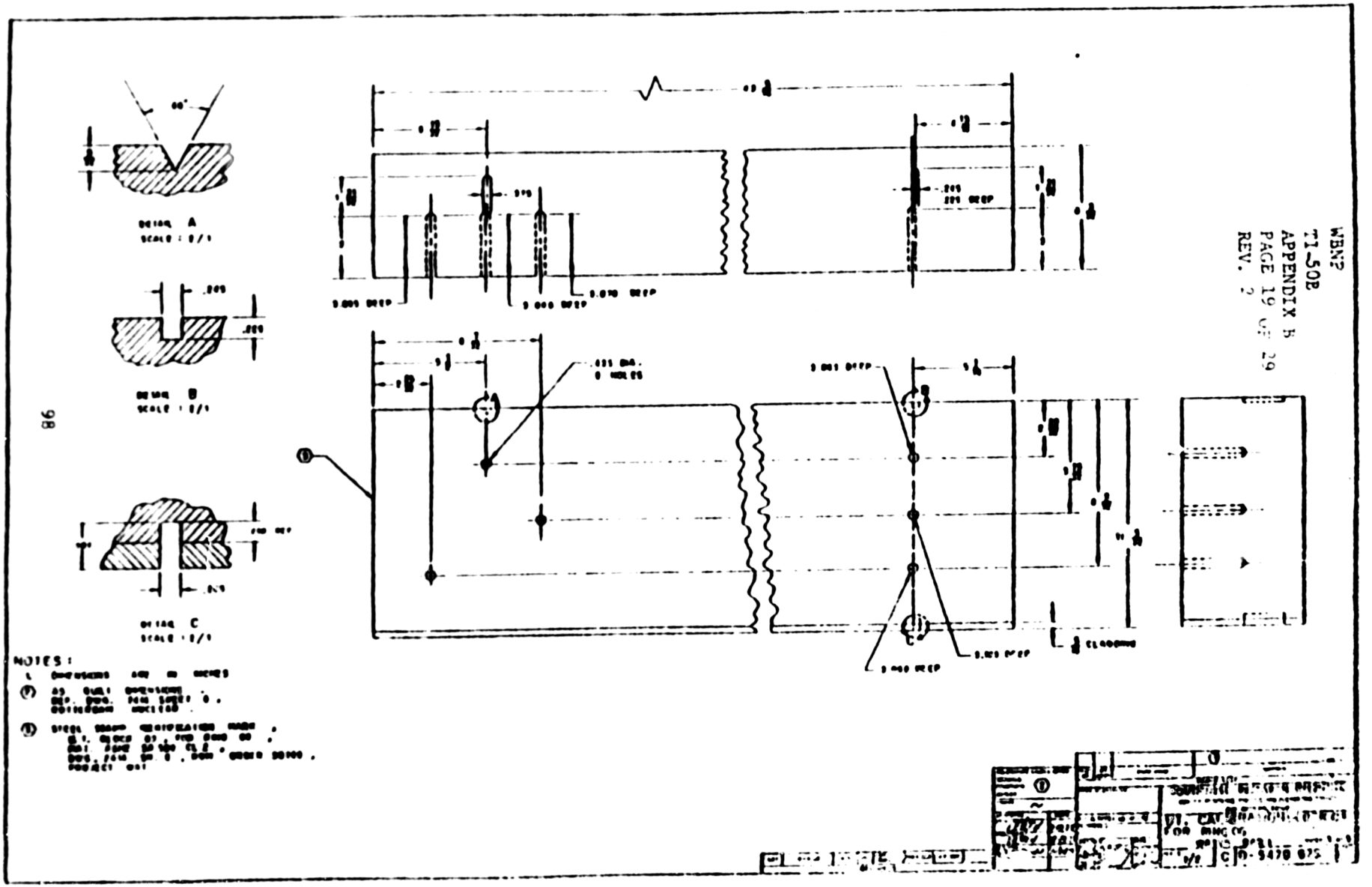
TENNESSEE VALLEY AUTHORITY

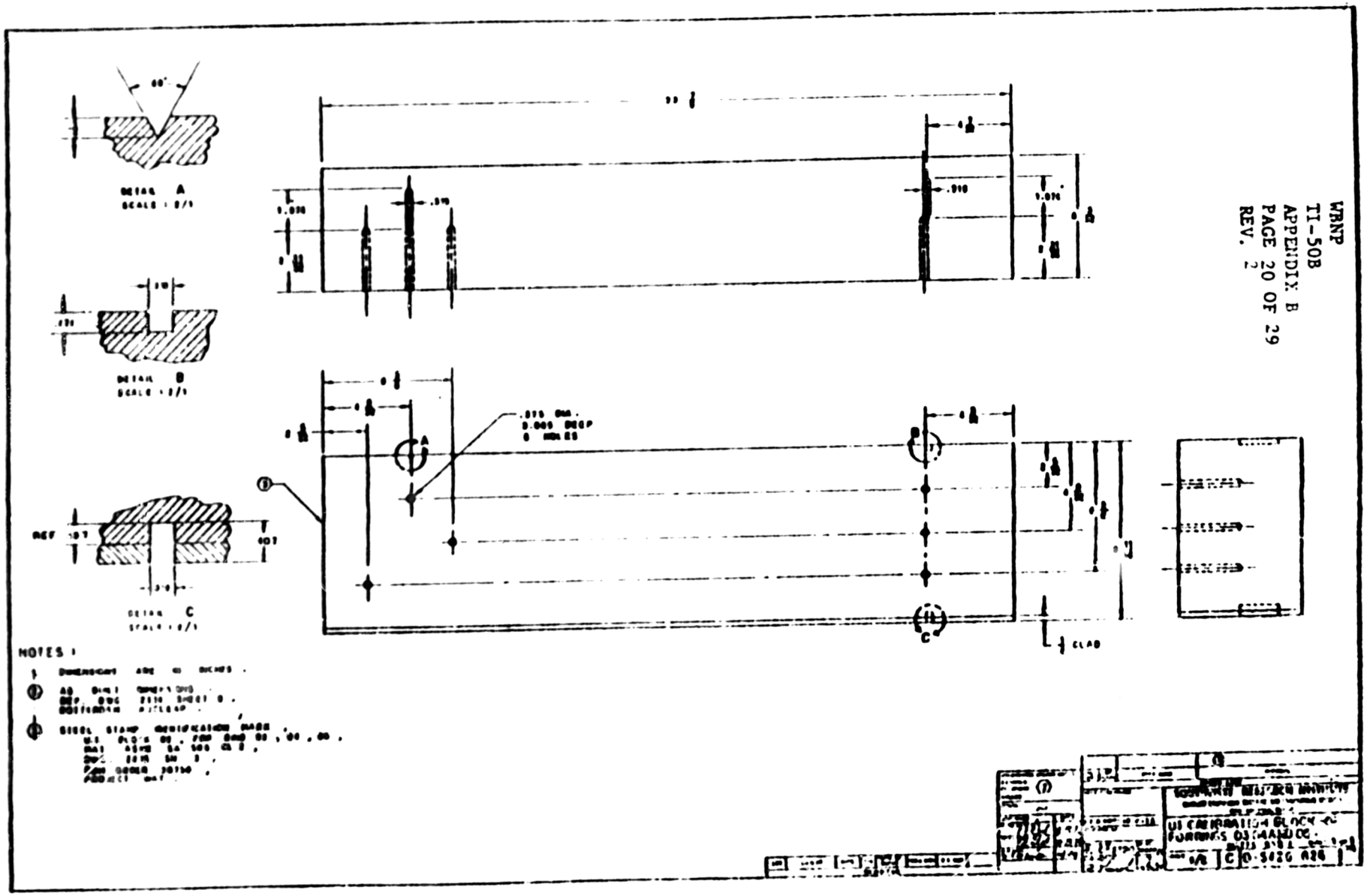
ULTRASONIC CALIBRATION BLOCK

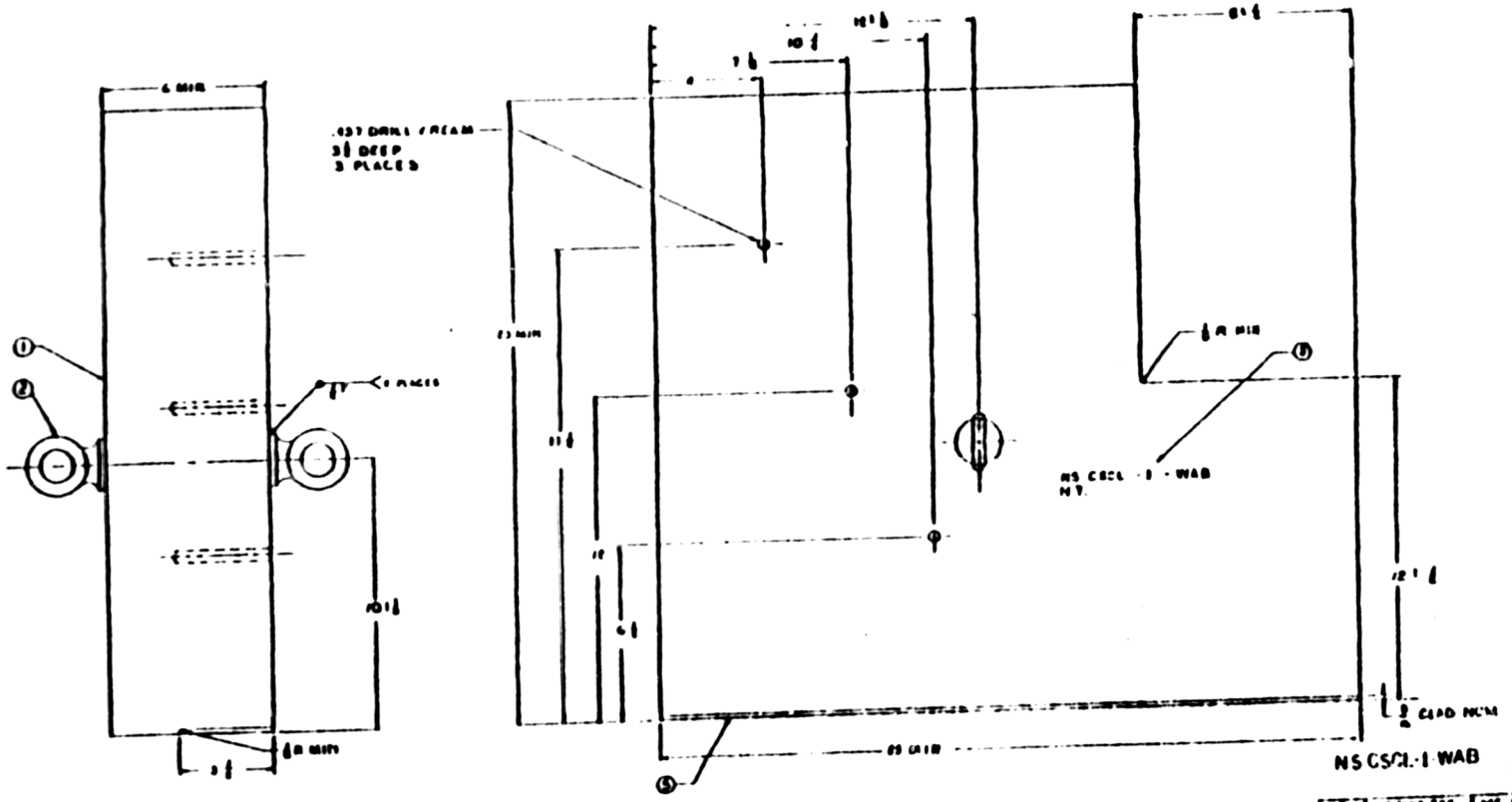

1/4" DIA. HOLES - DRILLED
(REAM 3" DEEP
TYP 6 PLACES
SIDE VIEW
TOP VIEW
2.00" LONG x 1/4" DIA.
FLATEND MILL NOTCHES.
3.00"
2.00"
1.00"
4.00"
2.00"
3.00"
24.00"
6.00"
.50"
2.00"
.08"
.08"
SCALE 1 1/2" = 1"
NOTE:
MATERIAL A-333
ULTRASONIC CALIBRATION
BLOCK
WB-39

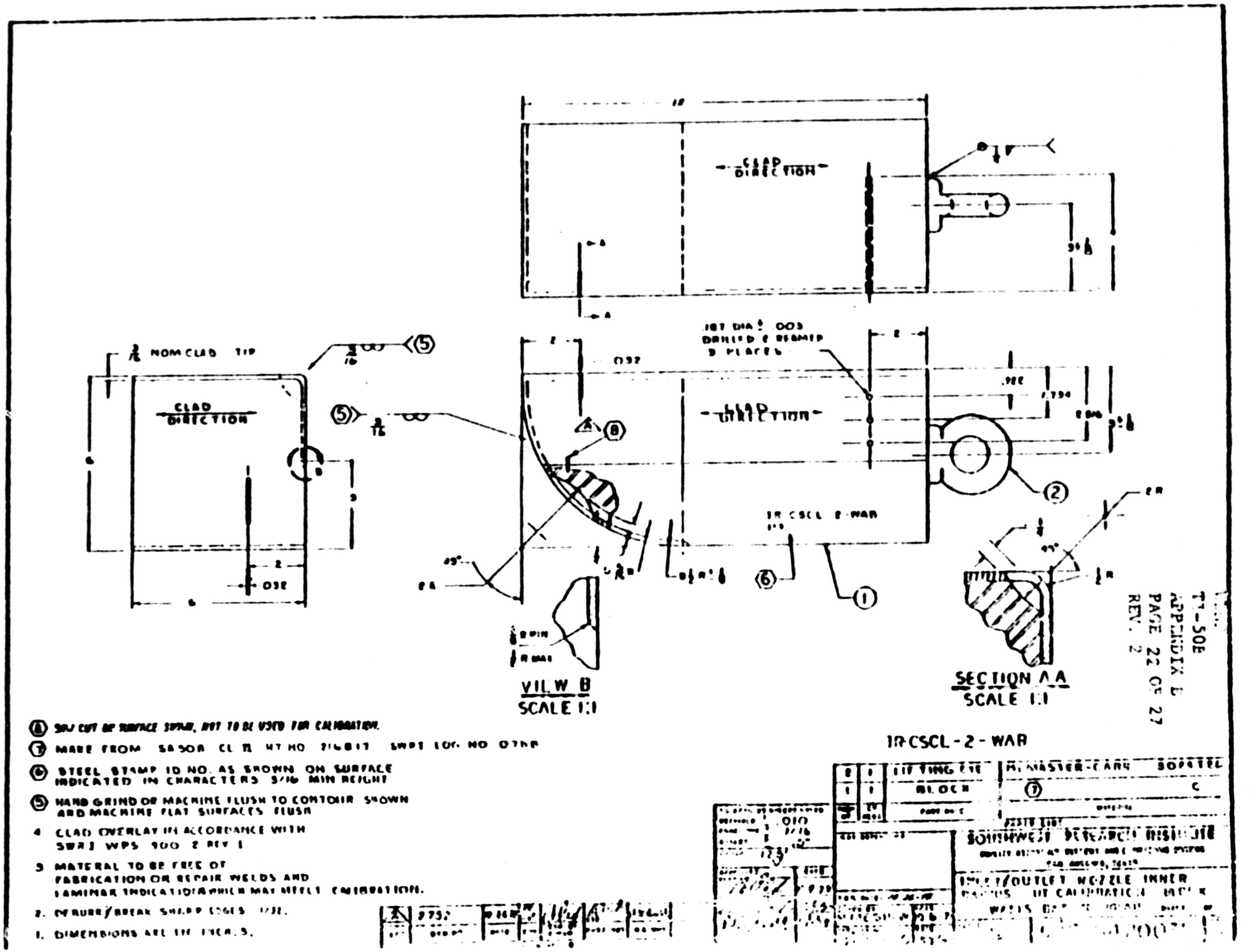

DETAIL A
DETAIL B
DETAIL C


VIEW A
VIEW B
VIEW C


DETAIL A
SCALE : 8/1
DETAIL B
SCALE : 8/1
DETAIL C
SCALE : 8/1
NOTES :
1. DIMENSIONS ARE IN INCHES


DETAIL A
DETAIL B
DETAIL C
CLAD
NOTES :


NS CS/CL-1 WAB



TT-50E
APPENDIX B
PAGE 22 OF 27
REV. 2

(8) SAW CUT OR SURFACE SHAPE, NOT TO BE USED FOR CALIBRATION.

(7) MADE FROM SA 508 CL II HT NO 216817 SWRI LOG NO 0788

(6) STEEL STAMP ID NO. AS SHOWN ON SURFACE INDICATED IN CHARACTERS 3/16 MIN HEIGHT

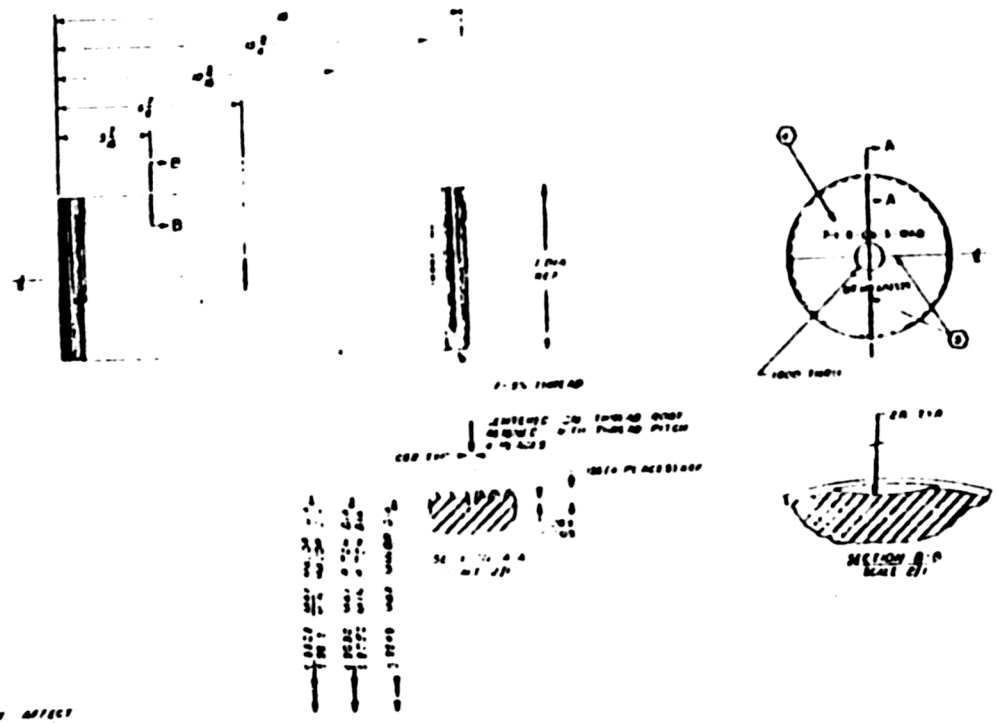
(5) HAND GRIND OR MACHINE FLUSH TO CONTOUR SHOWN AND MACHINE FLAT SURFACES FLUSH

4 CLAD OVERLAY IN ACCORDANCE WITH SWRI WPS 900 2 REV 1

3 MATERIAL TO BE FREE OF FABRICATION OR REPAIR WELDS AND LAMINAR INDICATIONS WHICH MAY AFFECT CALIBRATION.

2. DEBURR/BREAK SHARP EDGES 1/32.

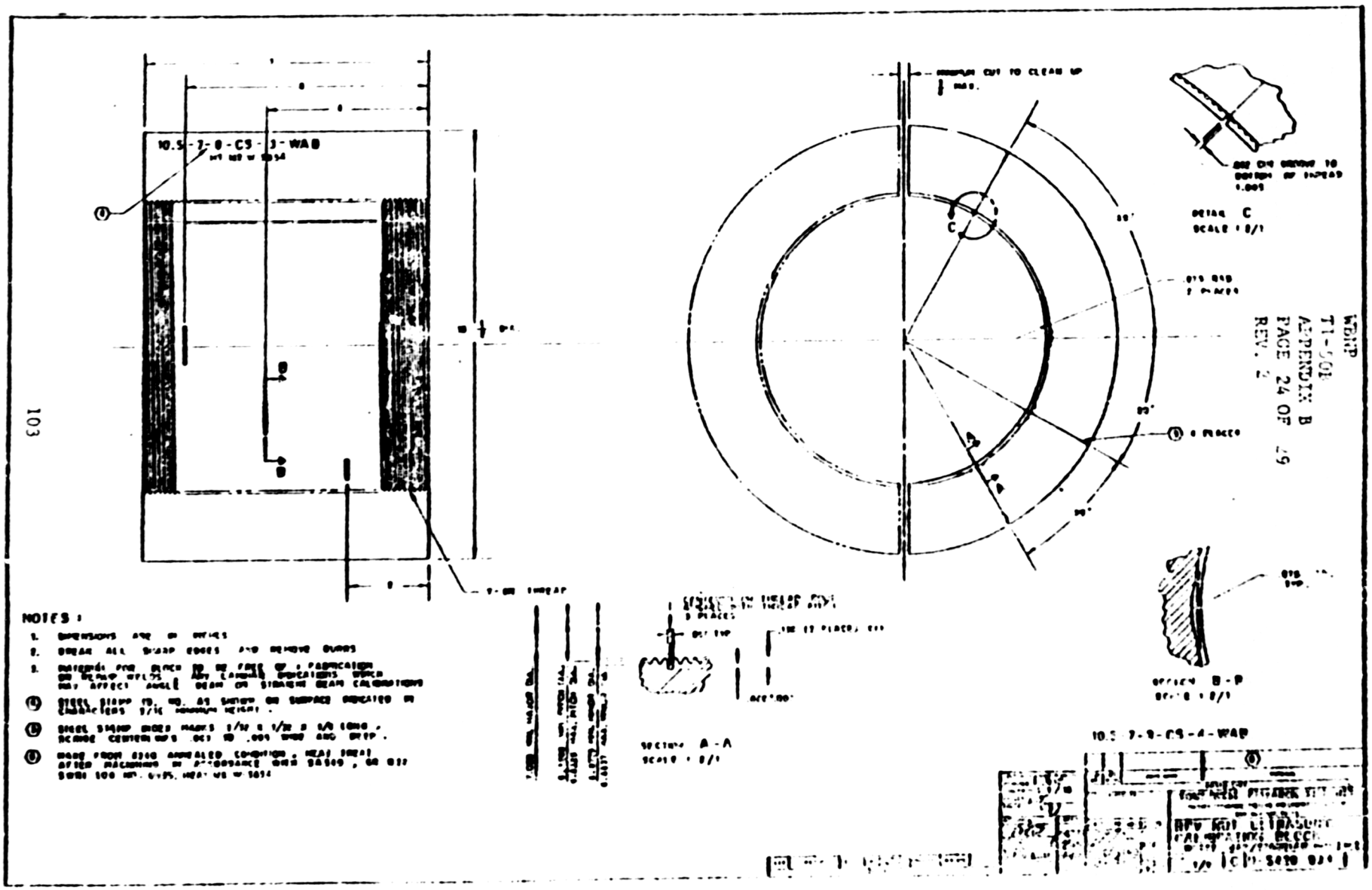
1. DIMENSIONS ARE IN INCHES.

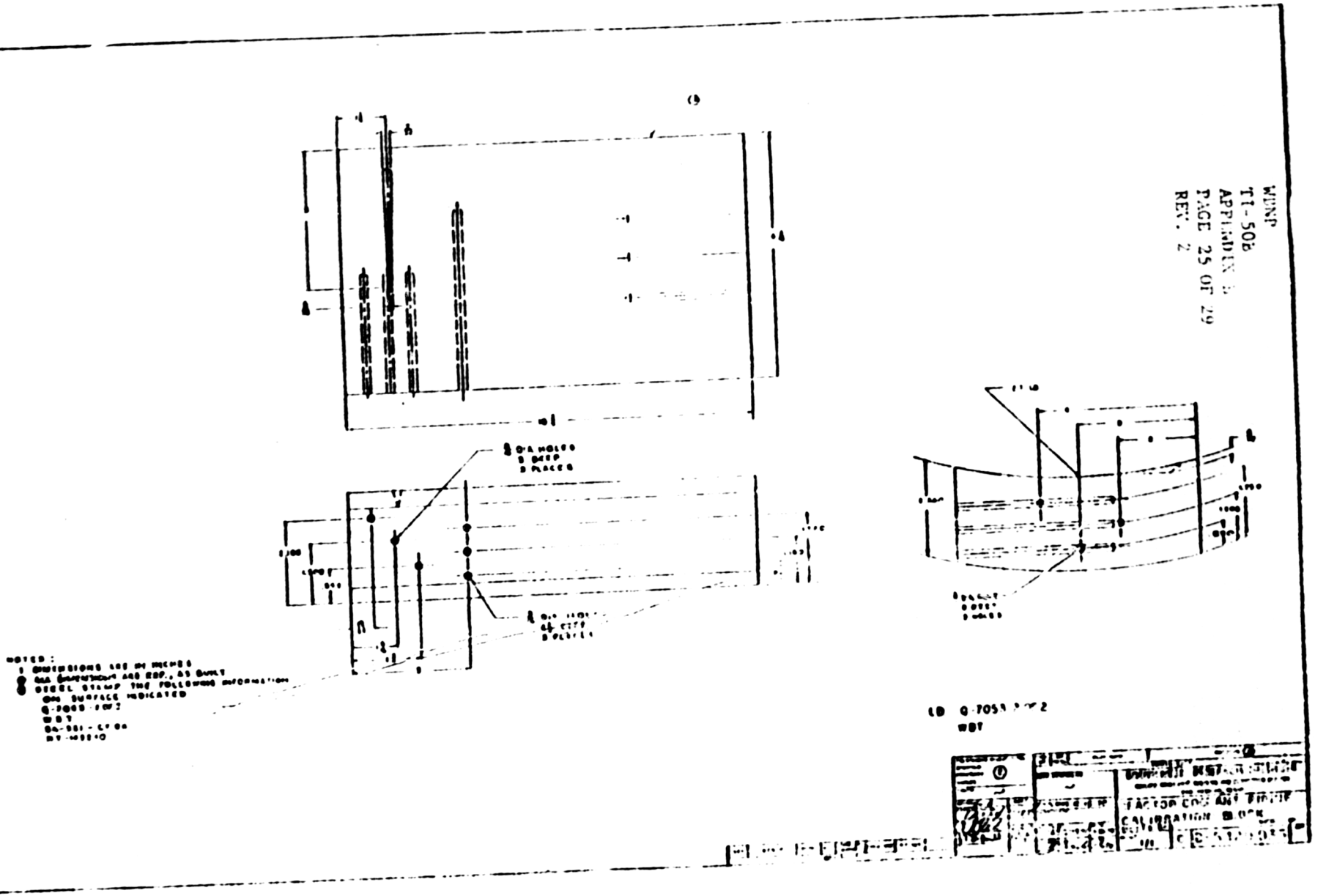


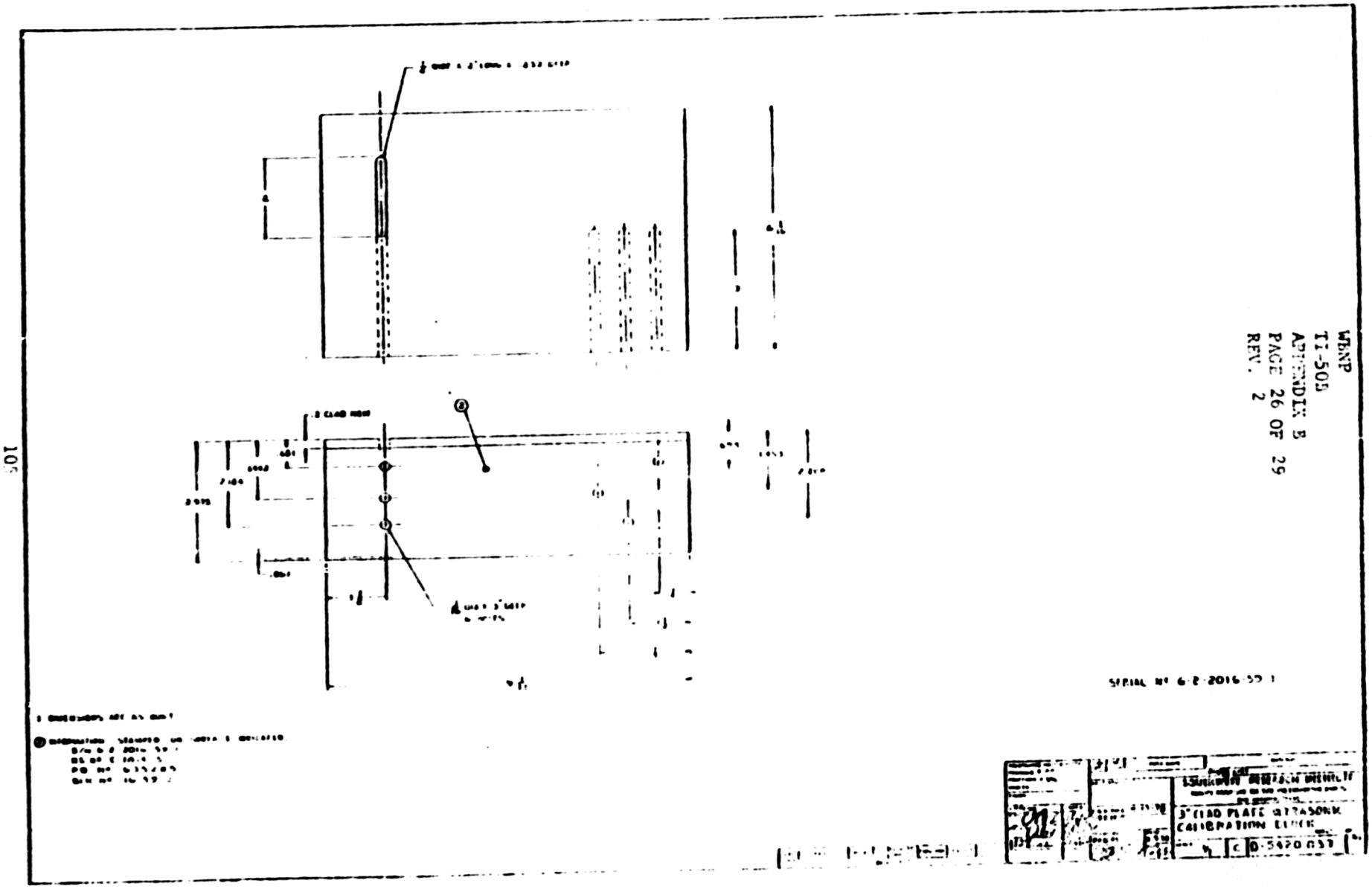
NOTES

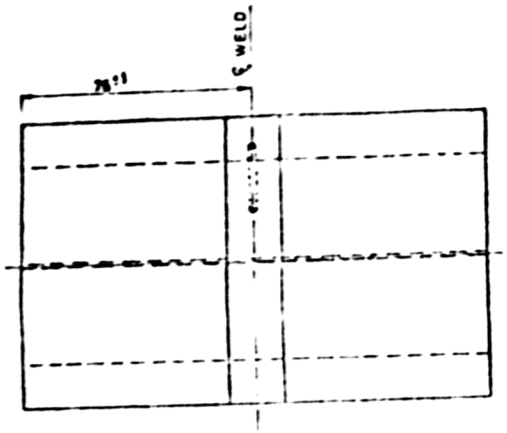
1. DIMENSIONS ARE IN INCHES
2. REMOVE ALL BURRS SHARP EDGES
3. MATERIAL FOR BLOCK TO BE FREE OF FABRICATION OR REPAIR WELDS, AND LAMINATION INDICATIONS WHICH MAY AFFECT ANGLE BEAM OR STRAIGHT BEAM EXAMINATIONS
4. STEEL STAMP ID NO AS SHOWN, ON SURFACE INDICATED ON CHARACTER SIZE AND HEIGHT
5. REMOVE LAMINATIONS OVER 1/2 OVER WIDE AND DEEP WHERE NOTED. STEEL STAMP ON ONE LOT, INDEX MARKS AT EACH END OF CENTERLINES
6. MAKE FROM ASTM A516 LIMITATION HEAT TREAT AFTER FABRICATION IN ACCORDANCE WITH SECTION, ASME CODE NO 9110, ASME NO 9111

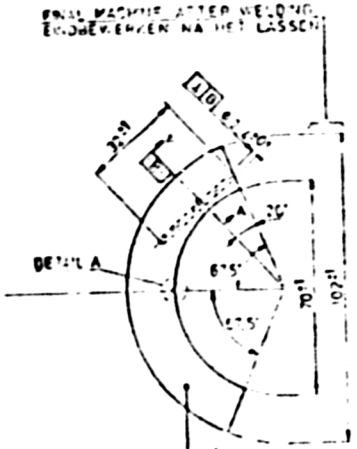
7-1-8 CS-3 WAB

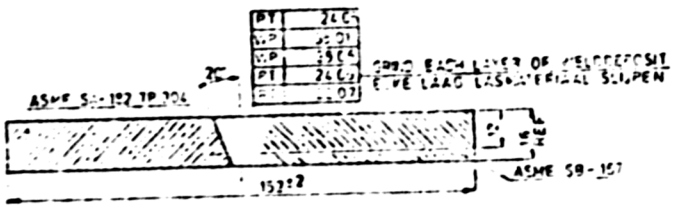

10.5-7-8-CS-3-WAB
NOTES:
SECTION A-A
SCALE 1/1
DETAIL C
SCALE 1/1
SECTION B-B
10.5-7-9-CS-4-WAB


NOTES:
1 DIMENSIONS ARE IN INCHES
STEEL STAMP THE FOLLOWING INFORMATION
ON SURFACE INDICATED
WBT
CALIBRATION BLOCK


SERIAL Nº 6-2-2016-59-1
3" CLAD PLATE ULTRASONIC
CALIBRATION BLOCK
D-5420-037







SECTION A-A

DETAIL A

ALL MACHINED SURFACES

STAMP IDENTIFICATION MARK

STEMPEL IDENTIFICATIE

ASME CODE

UT CALIBRATION BLOCKS

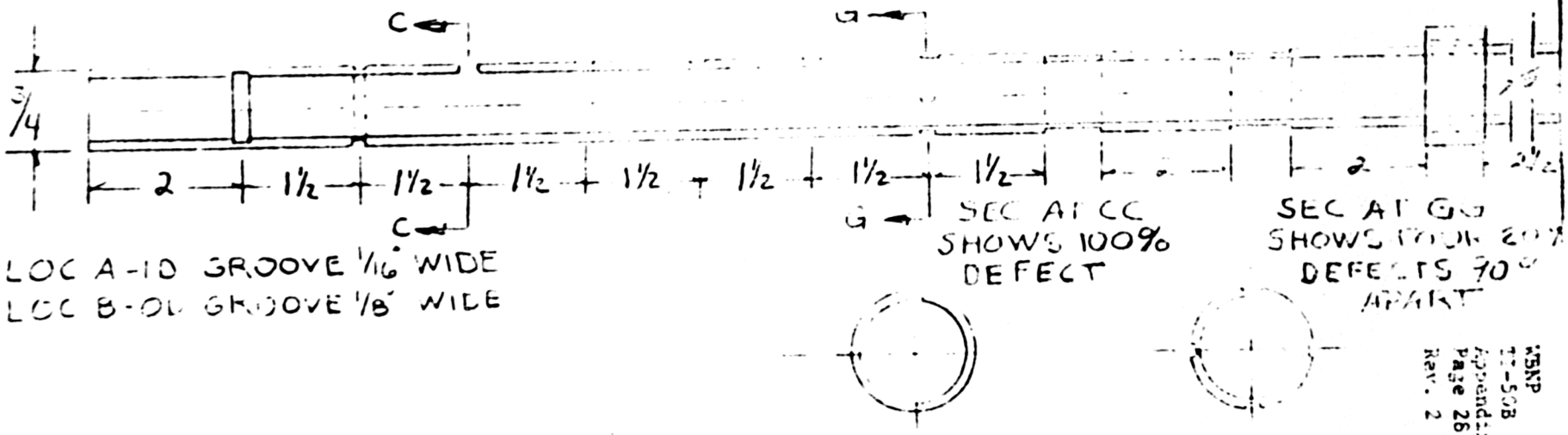
CRDM WELD (06)

FOR WST

30857

30749

LOCATION	A	B	C	D	E	F	G	H	I	J
(LOC [illegible]) PHYSICAL MEASURED DEPTH (IN %)	.0085"	.0045"	thru	.0345"	.027"	.017"	.008"	DEPTH .0025"	DEPTH .0006"	
E.T. PHASE MEASUREMENT	—	—	—	DNA	—	—	—	RADIAL DENTS 3/4" WIDE		SIMULATED TUBE SHEET RING 3/4" WIDE 1/8" THICK
DIA OF DEFECT			.052	5/64	7/64	3/16	3/16			



LOC A-ID GROOVE 1/16" WIDE
LOC B-OD GROOVE 1/8" WIDE

MATERIAL INCONEL 600
AVE. WALL THKNS .0435"
HEAT TREAT # NX 2586
TEST FREQ USED 550 KHZ
SERIAL # C&L Special #1 (Rev 2 3-18-8[illegible])
NOTE: ALL OD DEFECTS ARE FLAT BOTTOM HOLES

RECORDED ON REEL # None

ET CALIBRATION STND.

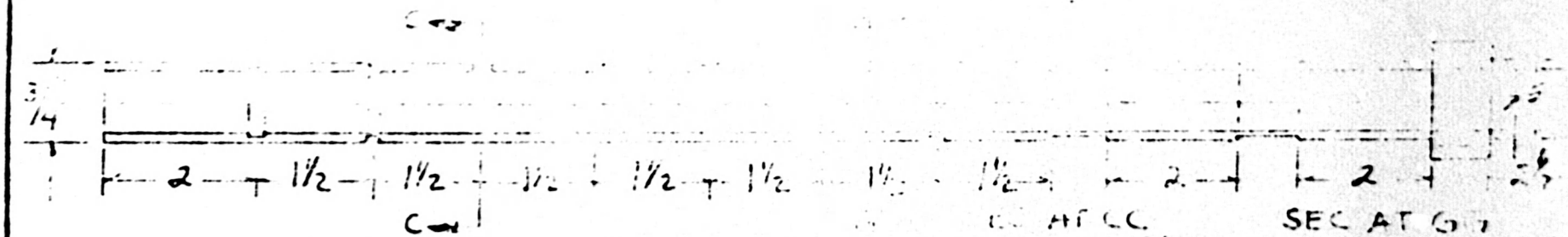
SCALE	APPROVED BY: [illegible]	DRAWN BY
DATE 10-2-81		REVISED

ZETEC INC

TOLERANCE [illegible] .003"

WBNP
TI-50B
Appendix A
Page 26 of 29
Rev. 2

LOCATION (LOC A THRU G)	A	B	C	D	E	F	G	H	I	J
PHYSICAL MEASURED DEPTH (IN %)	.009"	.004"	THRU	.03	.026"	.0175	.0085	DEPTH .0025"	DEPTH .0005"	
ET PHASE MEASUREMENT								RADIAL DENTS 3/4" .0105		SIMULATED TUBE SHEET
DIA OF DEFECT			.032"							3/4 WIDE 1/8 DEPTH



LOC A-ID GROOVE 1/16" WIDE
LOC B-OD GROOVE 1/8" WIDE

SEC AT CC SHOWS 100% DEFECT

SEC AT GG SHOWS FOUR 20% DEFECTS 9/16" APART

MATERIAL INCONEL
AVE. WALL THKNS .0430
HEAT TREAT # .5875
TEST FREQ USED
SERIAL # Cal. Special #2
NOTE: ALL OD DEFECTS ARE FLAT BOTTOM HOLES

APPROVED
DRAWN
REVISED