

58994

1192
Mail

FORM U-1 MANUFACTURER'S DATA REPORT FOR UNFIRED PRESSURE VESSELS

As Required by the Provisions of the ASME Code Rules

#58994

1. Manufactured by STRUTHERS WELLS CORPORATION, Warren, Penna.
2. Manufactured for M. W. Kellogg Co., New York, N.Y.
3. Type Horiz. Kind Heat Exch. Vessel No. 64-0-1585-4 Nat'l Bd. No. 11880 Yr. Built 1961

Items 4-9 incl. to be completed for single wall vessels (such as air tanks), jackets of jacketed vessels, or shells of heat exchangers.

4. Shell: Material Fbx. stl. T. S. 60,000 Nominal Thickness 7/16 Corrosion Allowance 1/8 In. Diam. 2 10-7/8 in. Length 20 1/2 ft.
5. Seams: Long Dbl. butt H. T. yes X. R. spot Sectioned no Efficiency 85%
6. Heads: (a) Material Fbx. stl. SA-201-B T. S. 60,000 (b) Material SA-201-B T. S. 60,000
7. Staybolts: If hollow Attachment Pitch X Diam.
8. Jacket Closure:
9. Constructed for Int. pressure of 150 psi. Max. Temp. 260 & 150 F. Subzero. 225# F. Hydrostatic Test.

If riveted describe seams fully on reverse side of form.

Items 10 and 11 to be completed for tube sections.

10. Tube Sheets: Stationary. Material Fgd. stl. SA-105 Gr. 2 Diam. 33-3/4 Thickness 6-11/16 Attachment Integral with chan.
11. Tubes: Material SA214 O. D. 3/4 in. Thickness 0.083 inches Number 400 Type U-tubes

Items 12-15 incl. to be completed for inner jackets of jacketed vessels or channels of heat exchangers.

12. Shell: Material channel SA-105 Gr. 2 Fgd. stl. T. S. 70,000 Nominal Thickness 2-9/16 Corrosion Allowance 1/8 In. Diam. 3 2-7/8 in. Length 1 6-5/16 ft.
13. Seams: Long none H. T. yes X. R. complete Sectioned no Efficiency 100%
14. Heads: (a) Material SA-212-4 Fbx. stl. T. S. 60,000 (b) Material SA-212-4 Fbx. stl. T. S. 60,000 (c) Material SA-212-4 Fbx. stl. T. S. 60,000
15. Constructed for Int. pressure of 2250 psi. Max. Temp. 150 F. Subzero. 3375 F. Hydrostatic Test.

Items below to be completed for all vessels where applicable.

16. Safety Valve Outlets: Number Size Location
17. Nozzles:
Shell inlet 2 1 1/2" 150# ASA Ig. weld neck Fgd. stl. 3/4" 1500
Shell outlet 2 1 1/2" 150# ASA Ig. weld neck " " 1.000
T.S. in & out 2 10" Stub " " 2-21/32
18. Inspection Manholes, No. 1 Size 16" Location Chan. end
19. Supports: Skirt Lugs Legs Other Saddle Attached welded to shell
20. Remarks: Chiller syn. gas on tube side and NH3 ref. on shell side

(Brief description of purpose of the vessel, as Air Tank, After Cooler, Jacketed Cooler, etc. State contents of each part.)
Form No. 541E (Over) 24 7" OAL

4PP82

P.O. No. ~~5257-C-20-101 (Monsanto)~~
5218-C-20-101 (Air Products)
~~5259-C-20-101 (Phillips Petro)~~

We certify that the statements made in this report are correct and that all details of design, material, construction, and workmanship of this unfired pressure vessel conform to the ASME Code for Unfired Pressure Vessels.
Date Feb 9, 1965 Signed Struthers Wells Corporation By E. J. Honhart
(Manufacturer)

Certificate of Authorization Expires December 31st 1965

CERTIFICATE OF SHOP INSPECTION

VESEL MADE BY Struthers Wells Corporation at Warren, Pennsylvania

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of _____ and employed by HARTFORD STEAM BOILER INSP. & INSP. CO. of HARTFORD, CONN. have inspected the pressure vessel described in this manufacturer's data report on _____ 19____, and state that to the best of my knowledge and belief, the manufacturer has constructed this pressure vessel in accordance with the applicable sections of the ASME Boiler and Pressure Vessel Code.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this manufacturer's data report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

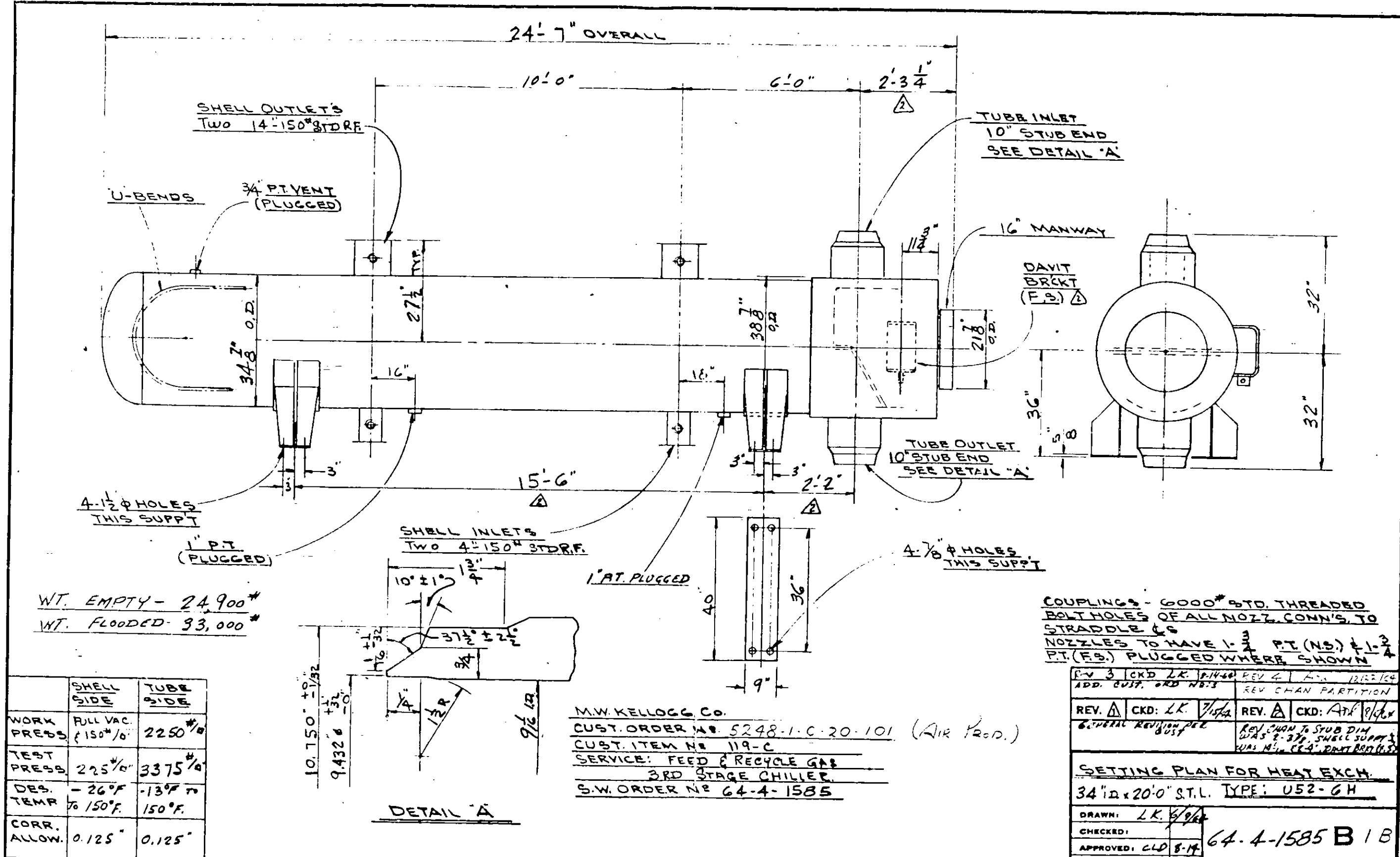
Date Feb 9, 1965
Inspector Signature [Signature] Commissions 3760
Nat'l Board or State and No. _____

CERTIFICATE OF FIELD ASSEMBLY INSPECTION

I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of _____ and employed by _____ of _____ have compared the statements in this manufacturer's data report with the described pressure vessel and state that parts referred to as data items _____, not included in the certificate of shop inspection have been inspected by me and that to the best of my knowledge and belief the manufacturer has constructed and assembled this pressure vessel in accordance with the applicable sections of the ASME Boiler and Pressure Vessel Code. The described vessel was inspected and subjected to a hydrostatic test of _____ psi.

By signing this certificate neither the Inspector nor his employer makes any warranty, expressed or implied, concerning the pressure vessel described in this manufacturer's data report. Furthermore, neither the Inspector nor his employer shall be liable in any manner for any personal injury or property damage or a loss of any kind arising from or connected with this inspection.

Date _____ 19____
Inspectors Signature _____ Commissions _____
Nat'l Board or State and No. _____



WT. EMPTY - 24,900*
 WT. FLOODED - 33,000*

	SHELL SIDE	TUBE SIDE
WORK PRESS.	FULL VAC. ± 150*10	2250*10
TEST PRESS.	225*10	3375*10
DES. TEMP	-26°F to 150°F	-13°F to 150°F
CORR. ALLOW.	0.125"	0.125"

M.W. KELLOGG CO.
 CUST. ORDER NO. 5248-1-C-20-101 (AIR Prod.)
 CUST. ITEM NO. 119-C
 SERVICE: FEED & RECYCLE GAS
 3RD STAGE CHILLER
 S.W. ORDER NO. 64-4-1585

COUPLINGS - 6000* STD. THREADED
 BOLT HOLES OF ALL NOZZ. CONN'S. TO
 STRADDLE C&S
 NOZZLES TO HAVE 1-3/4" P.T. (NS.) & 1-3/4"
 P.T. (F.S.) PLUGGED WHERE SHOWN

REV. 3	CKD: LK. 7/14/60	REV. 4	REV. CHAN PARTITION
REV. A	CKD: LK. 7/15/60	REV. A	CKD: ATK 9/1/60
GENERAL REVISION PER BUSF		REV. CHAN TO STUB DIM WAS 2-3/4" SHELL SUPPT WAS 1 1/2" EX. 4" DAVIT BRKT (F.S.)	

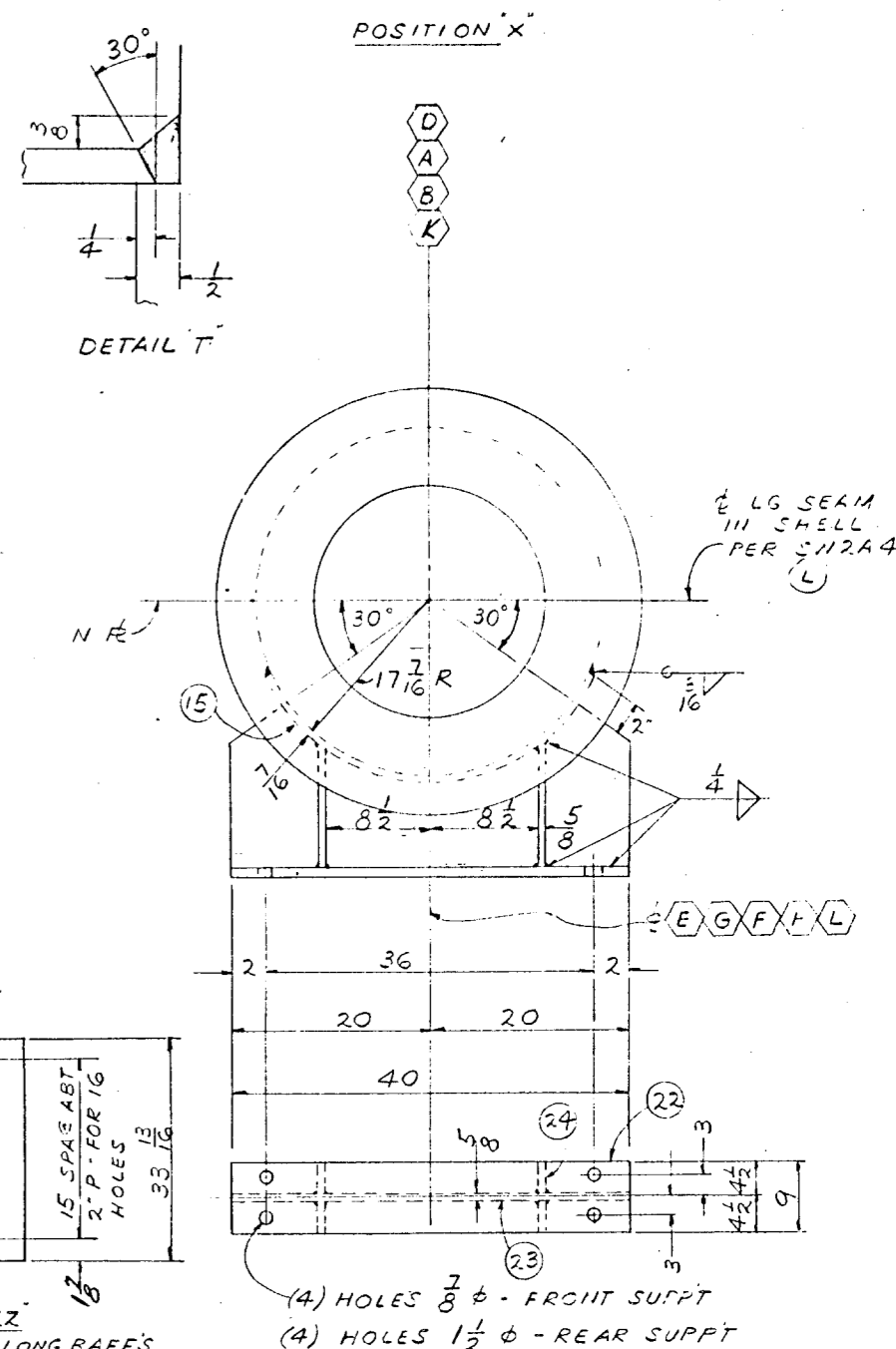
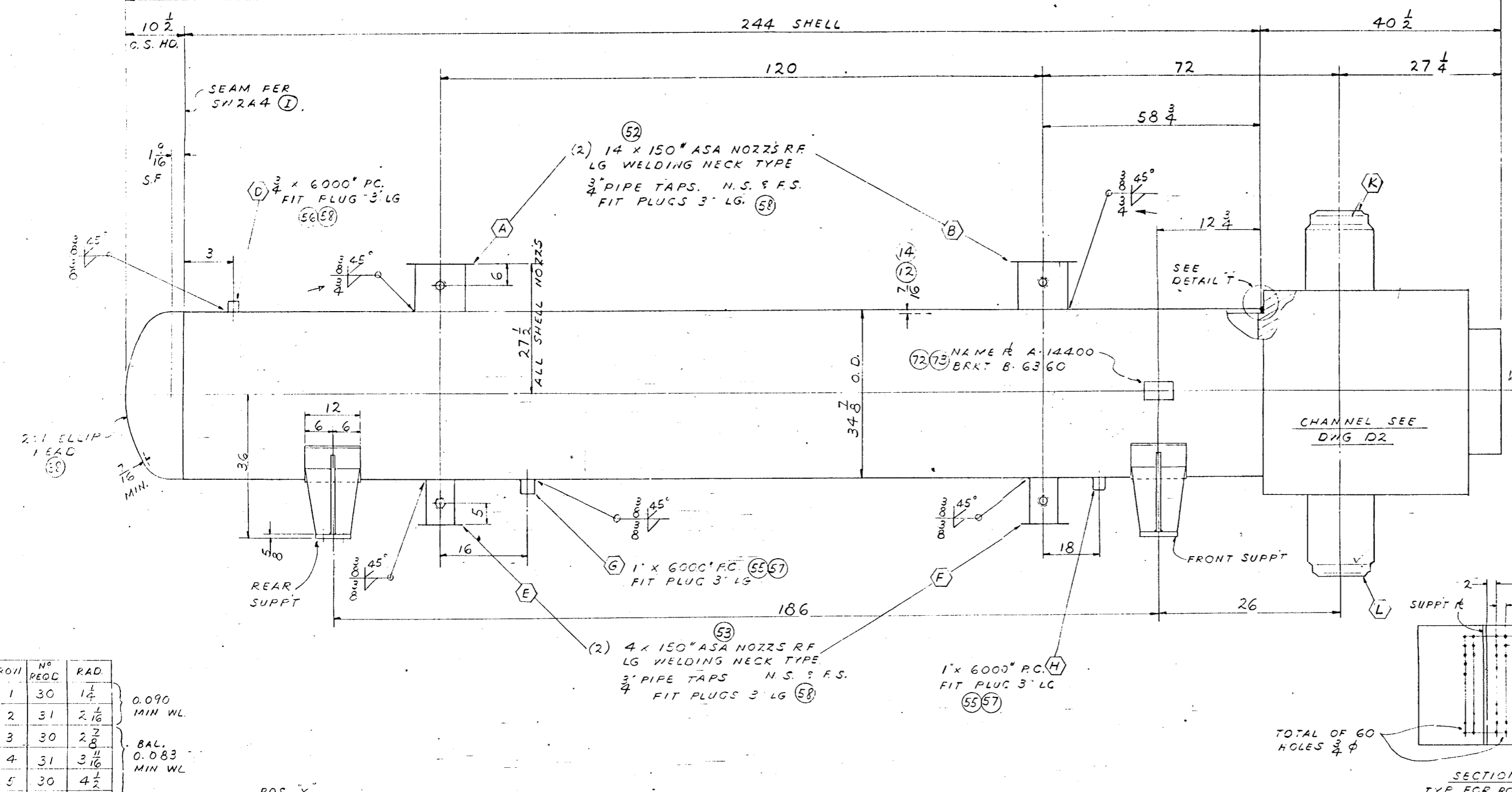
SETTING PLAN FOR HEAT EXCH.	
34" ID x 20' 0" ST.L. TYPE: U52-6H	
DRAWN: LK. 7/14/60	64-4-1585 B1B
CHECKED:	
APPROVED: CLD 8-14	
SCALE: DATE	

STRUTHERS WELLS CORPORATION • WARREN, PA.

58994
 NO. 1000 ALBANY, N.Y. A. & S. SMITH CO., PHOENIX, PA. PR 4629-680
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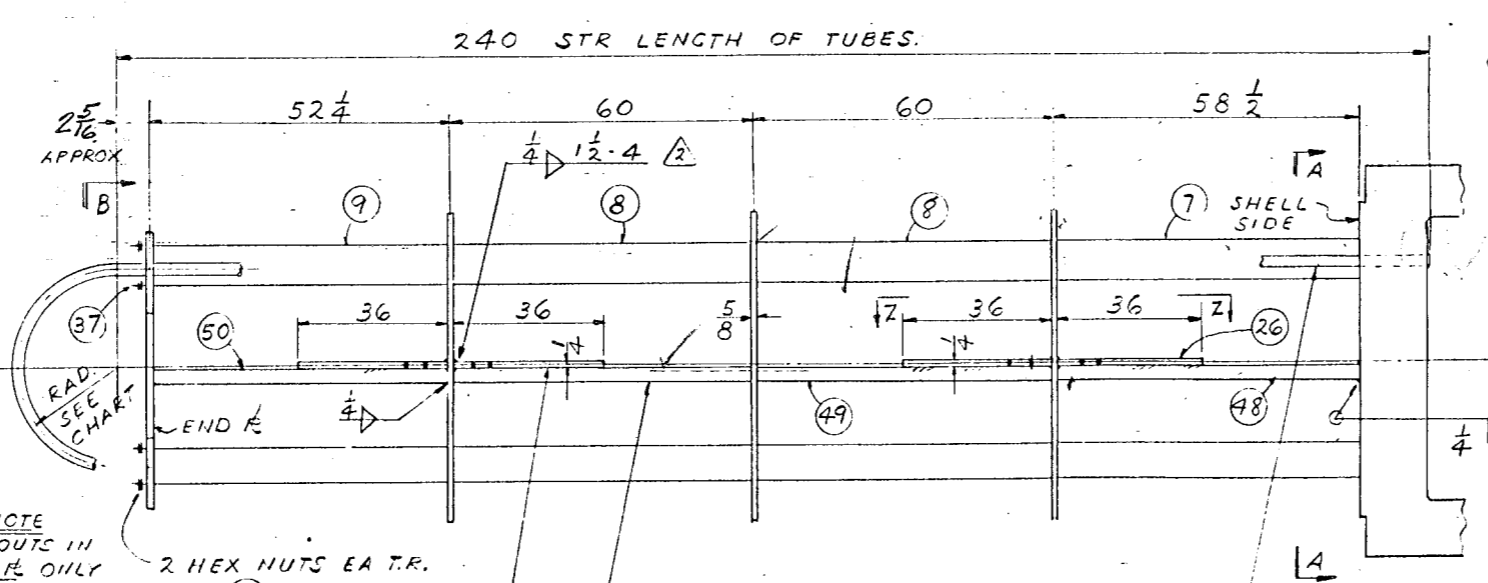
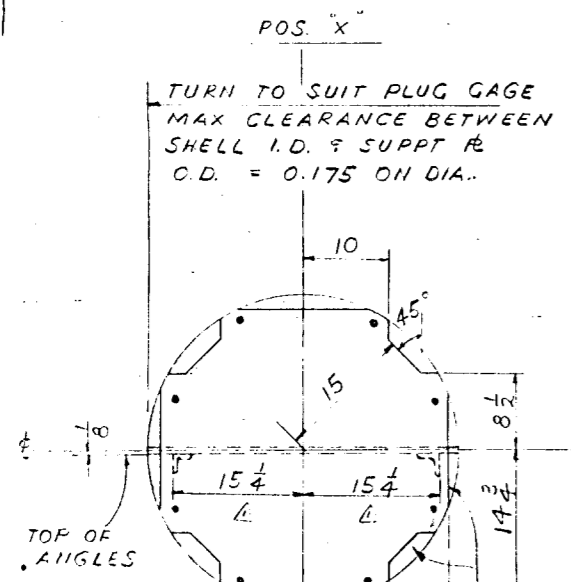
15331-1-13

295 (24'-7") OAL.

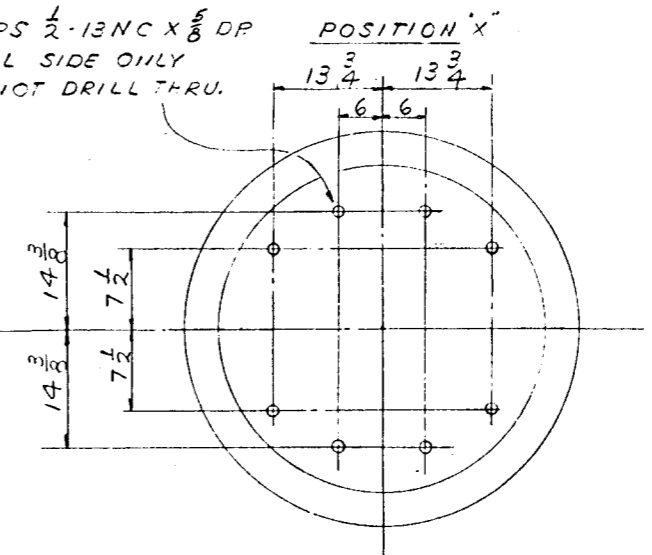


ROW	Nº	RAD
1	30	1 1/4
2	31	2 1/8
3	30	2 3/8
4	31	3 1/8
5	30	4 1/4
6	29	5 1/8
7	28	6 1/4
8	25	6 1/2
9	26	7 1/4
10	25	8 1/4
11	24	9 1/4
12	23	10 1/4
13	20	11
14	17	11 1/2
15	16	12 1/2
16	11	13 1/2
17	4	14 1/2

0.090 MIN WL
BAL. 0.083 MIN WL



8 TAPS 1/2-13NC x 5/8 DP SHELL SIDE ONLY DO NOT DRILL THRU.



NOTE CUT OUTS IN END R ONLY
2 HEX NUTS EA T.R.
3 FULL SUPPT RS & 1 END R RECD.
DRILL 9/64 DIA FOR TUBE HOLES. REMOVE BURRS BOTH SIDES. TUBE LAYOUT PER DWG 64-4-1583C1 DRILL 9/16 DIA FOR TIE RODS. LOG PER SECTION AA

(2) 12 x 1/2 x 1/4 L'S WELD TO SUPPT RS, T.S. & LONG BAFFLE

(1) (2) 400 U-TUBES 3/4 O.D. x 0.083 MIN WL (EXCEPT ROWS 1 & 2 ARE 0.090 MIN WL) WELDED STL. TO ASME SPEC. SA-214 (SEE CHART) WIFE CLEAN BEFORE INSTALLING SEE DETAIL DWG D2 FOR TUBE END WELDING.

CUST ORD. 5257-1-C-20-101 (M)
5248-1-C-20-101 (A)
5259-1-C-20-101 (P)

DIMENSIONS ARE IN INCHES. NOZZ. BOLT HOLES TO STR ES. GRIND IS. EXPOSED NOZZ. EDGES TO 1/8 R. 3 UNITS ITEM 119C

REV.	Δ	CKD:	DATE	REV.	Δ	CKD:	DATE

3 STAGE CHILLER 34 3/8" O.D. x 295 OAL TYPE 20U52-64

CHECKED: CK 7-8-62
APPROVED: CK 9-4-62

SCALE: DATE