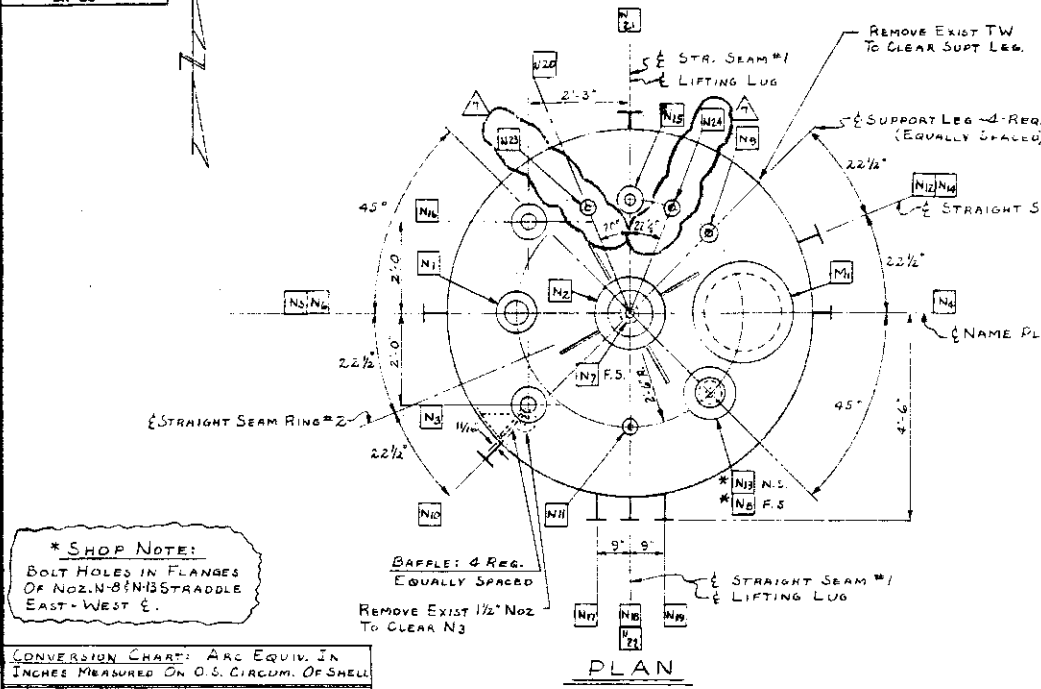
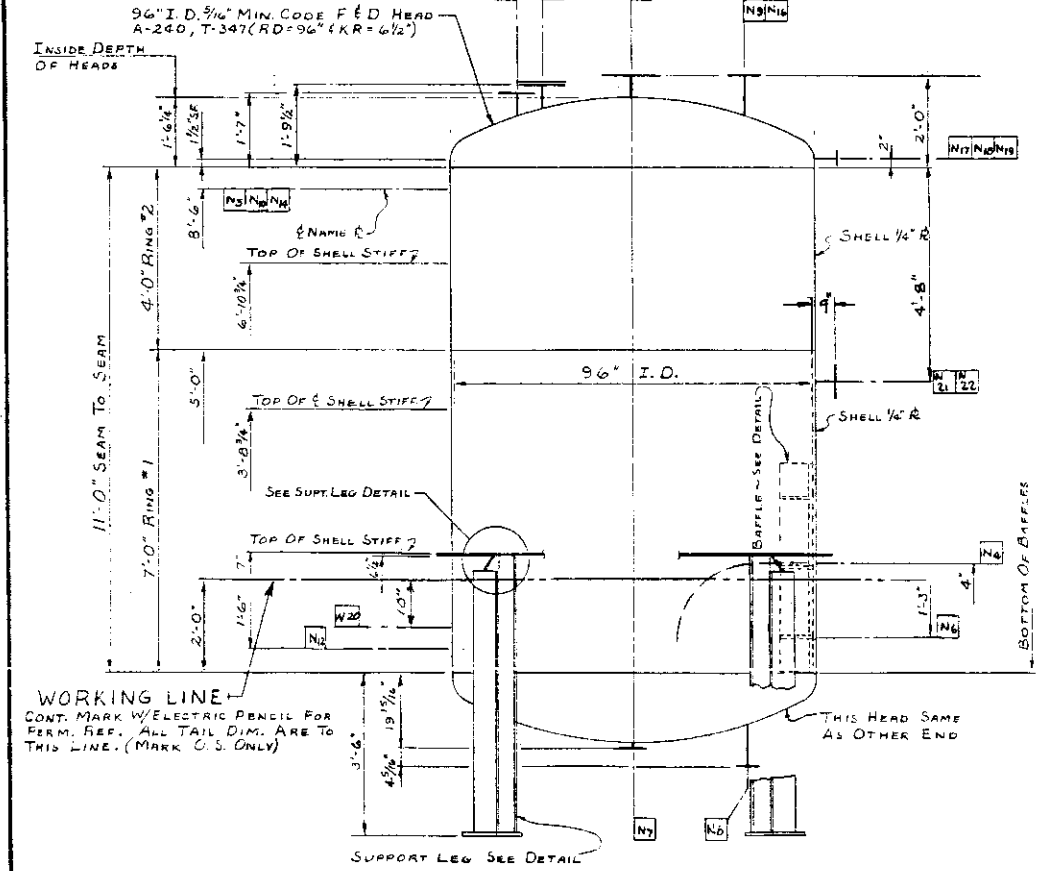




CONVERSION CHART: ARC EQUIV. IN INCHES MEASURED ON O.S. CIRCUM. OF SHELL

DEGREES	INCHES
360°	503 1/16" (-)
90°	75 1/16" (-)
45°	37 7/8" (+)
22 1/2°	18 15/16" (+)
20°	17"

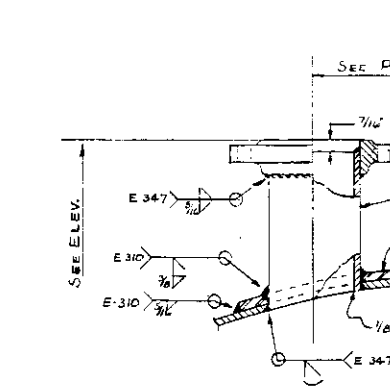
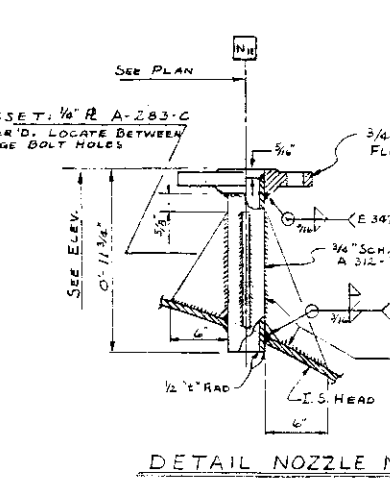
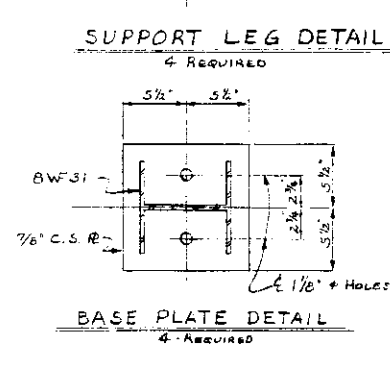
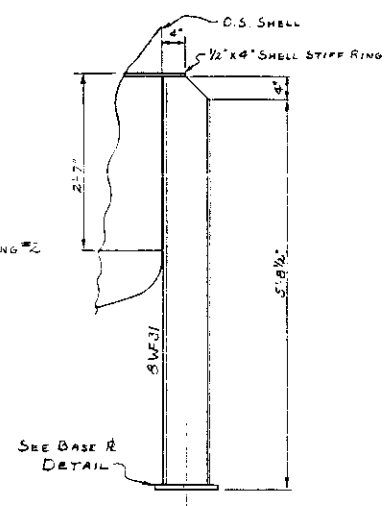


WORKING LINE - CONT. MARK W/ ELECTRIC PENCIL FOR FERM. REF. ALL TAIL DIM. ARE TO THIS LINE. (MARK C.S. ONLY)

THIS HEAD SAME AS OTHER END

SUPPORT LEG SEE DETAIL

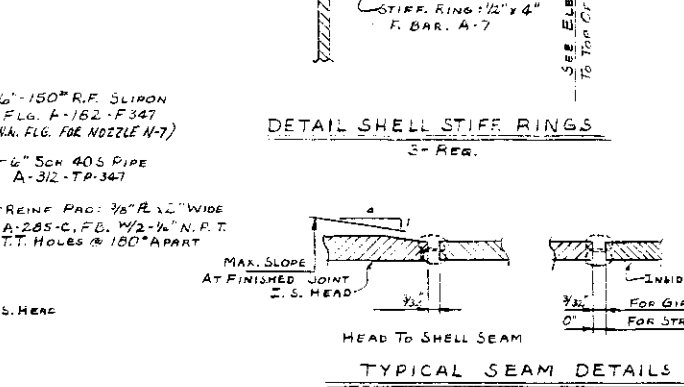
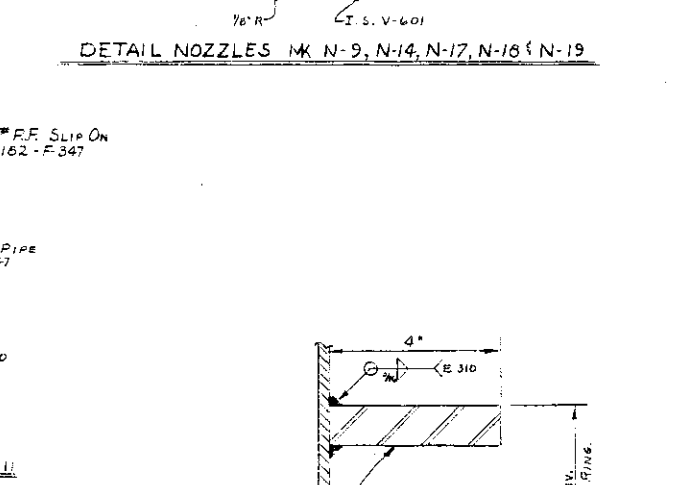
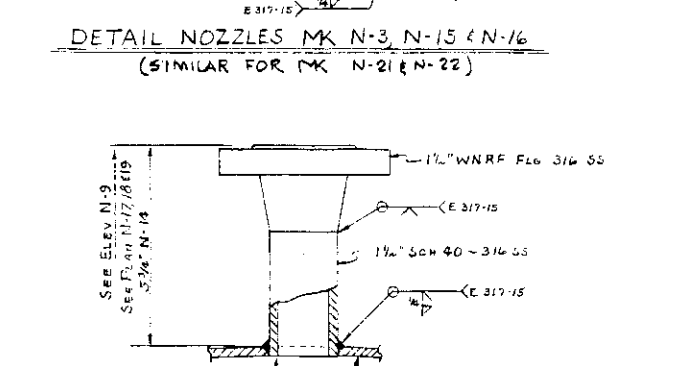
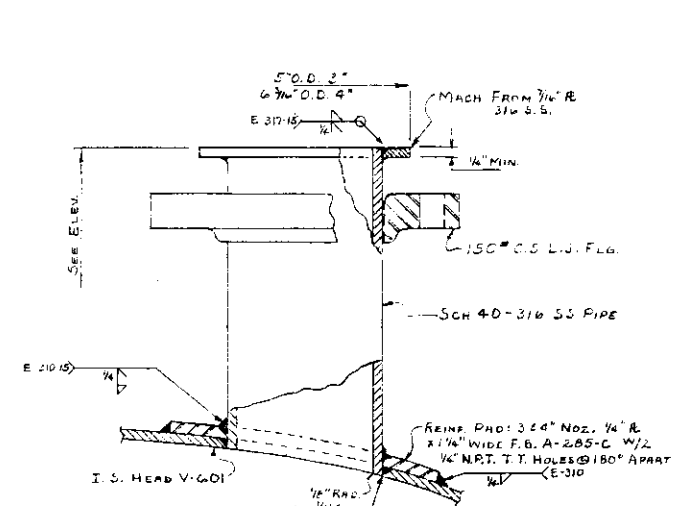
ELEVATION (SEE PLAN FOR TRUE ORIENTATION)



REFERENCE DRAWINGS

WT-9404 MISC. DETAILS V-601 WYATT'S No. WCE-2651-2 & BAY CITY No. BC-5440

WT-9405 MISC. DETAILS V-601 WYATT'S No. WCE-2651-3 & BAY CITY No. BC-5441



REFERENCE DRAWINGS

WT-9404 MISC. DETAILS V-601 WYATT'S No. WCE-2651-2 & BAY CITY No. BC-5440

WT-9405 MISC. DETAILS V-601 WYATT'S No. WCE-2651-3 & BAY CITY No. BC-5441

SCHEDULE OF OPENINGS

MARK	QUANTITY	SIZE	FLANGE TYPE	RATING	SPEC.	MAT.	SCH.	NOZZLE	SERVICE	REMARKS
M-1	ONE	20"	RF	150	F-347	408	S.S.	MANHOLE		
N-1	ONE	2"	RF	150	F-347	408	S.S.	INLET OR VAPOR OUT		
N-2	ONE	12"	RF	150	F-347	408	S.S.	INLET		
N-3	ONE	4"	L.J.	150	C.S.	40	116SS	INLET	NEW	
N-4	ONE	1"	RF	150	F-347	808	S.S.	BLIND		
N-5	ONE	1 1/2"	RF	150	F-347	408	S.S.	BLIND		
N-6	ONE	1 1/2"	RF	150	F-347	408	S.S.	BLIND		
N-7	ONE	6"	WNRF	150	316SS	40	116SS	LIQUID OUT		
N-8	ONE	2"	RF	150	F-347	408	S.S.	INLET		
N-9	ONE	1 1/2"	WNRF	150	316SS	40	116SS	S.H.	NEW	
N-10	ONE	2"	RF	150	F-347	408	S.S.	INLET		
N-11	ONE	3/4"	RF	150	F-347	808	S.S.	BLIND		
N-12	ONE	1 1/2"	RF	150	F-347	408	S.S.	LEVEL CONTROL		
N-13	ONE	8"	RF	150	F-347	408	S.S.	VAPOR OUT		
N-14	ONE	1 1/2"	WNRF	150	316SS	40	116SS	LEVEL CONTROL	NEW	
N-15	ONE	3"	L.J.	150	C.S.	40	116SS	VENT	NEW	
N-16	ONE	4"	L.J.	150	C.S.	40	116SS	INLET OR VAPOR OUT		
N-17	ONE	1 1/2"	WNRF	150	316SS	40	116SS	INLET	NEW	
N-18	ONE	1 1/2"	WNRF	150	316SS	40	116SS	INLET	NEW	
N-19	ONE	1 1/2"	WNRF	150	316SS	40	116SS	VENT FROM V-1901		
N-20	ONE	20"	L.J.	150	316SS	40	116SS	MANHOLE		
N-21	ONE	4"	L.J.	150	C.S.	40	116SS	INLET	NEW	
N-22	ONE	3"	L.J.	150	C.S.	40	116SS	INLET	NEW	
N-23/24	TWO	3/4"	WNRF	150	316SS	40	116SS	ANALYZER	NEW	

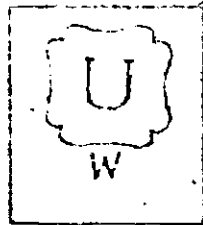
- DESIGN DATA
- ASME Code for Unfired Pressure Vessels, Section VIII, Edition 1962.
 - Additional Specifications: Colanese Purchasing Spec. (25-41)-312-24 & Code Symbols to be Applied: 1st.
 - Design Pressure: 25 PSIG plus necessary stiffening rings for full vacuum at 400°F.
 - Design Temperature: 400°F.
 - Corrosion Allowance: NONE.
 - Type of Head: CODE F & D.
 - Stress Relief: Required: NO.
 - Radiograph Required: SPOT.
 - Joint Efficiency: Head 100% Shell Longitudinal: 80%.
 - Maximum allowable Working Pressure (no corrosion allowance) Limited by M-1 COVER & . . . 50PSI @ 100°F. Limited by M-1 COVER & . . . 50PSI @ 400°F.
 - Hydrostatic Test Pressure: 75 P.S.I.G. (Based on Max. New and cold allowable pressure, no corrosion allowance.)
 - Weight Empty: 6700#.
 - Weight Full of Water: 47,950 lbs.
 - Design Wind Load: 21#/Sq. Ft. on Projected Area.
 - Mfg. Serial No. C-2651-64.
 - Inspection by Hartford S.E.I. & L. Co. & Colanese.

- MATERIAL SPECIFICATIONS
- Shell ASME: SA-240-T347.
 - Head ASME: SA-240-T347.
 - Flanges ASME: SA-182-T347 & SA-240-T347, EXCEPT AS OTHERWISE NOTED.
 - Nozzle Necks ASME: SA-312-TP347 & SA-240-T347, EXCEPT AS OTHERWISE NOTED.
 - Nozzle Reinforcing ASME: A-285-C, FLX.
 - Pressure Bolting ASME: SA-193-B7. Studs Nuts: SA-194-CL2h.
 - Internals ASME: SA-312-TP347 & SA-240-T347.
 - ASME - Supports: Stainless Steel (Preferred) or Carbon Steel.
 - Stiffener Rings ASME: SA-7 & SA-285-C.
 - Gaskets: Teflon-ASH, Filled Envelope Type.
 - Paint: Not Req'd.
 - SA-233-CL E60 Series for welding C.S. to C.S.; SA-29L.
 - Weld Rod ASME: E-310 cb for welding C.S. to T347; SA-29L-E-347 for welding T347 to T347 manually; and SA-371-ER347 for welding automatically T347 to T347.

- GENERAL NOTES
- All bolt holes shall straddle center lines except as otherwise noted.
 - Protect all machined surfaces and threaded connections with rust preventive.
 - Vessel shall be drained and cleaned before shipping.
 - All nozzle flanges shall be ASA standard except for manhole flanges.
 - No metallic pigment paints, or center punch or tool marks shall be used for marking stainless steel, and no fit up lugs shall be used on inside of shell.
 - Tolerances to be per page 9 of BRAUN specification 10-1.
 - All welding to be in accordance with Wyatt standard welding procedures. (modified per Colanese specifications Section #9) (HE-01 & HE-02 & HE-03 & HE-04 & HE-05 & HE-06 & HE-07 & HE-08 & HE-09 & HE-10 & HE-11 & HE-12 & HE-13 & HE-14 & HE-15 & HE-16 & HE-17 & HE-18 & HE-19 & HE-20 & HE-21 & HE-22 & HE-23 & HE-24 & HE-25 & HE-26 & HE-27 & HE-28 & HE-29 & HE-30 & HE-31 & HE-32 & HE-33 & HE-34 & HE-35 & HE-36 & HE-37 & HE-38 & HE-39 & HE-40 & HE-41 & HE-42 & HE-43 & HE-44 & HE-45 & HE-46 & HE-47 & HE-48 & HE-49 & HE-50 & HE-51 & HE-52 & HE-53 & HE-54 & HE-55 & HE-56 & HE-57 & HE-58 & HE-59 & HE-60 & HE-61 & HE-62 & HE-63 & HE-64 & HE-65 & HE-66 & HE-67 & HE-68 & HE-69 & HE-70 & HE-71 & HE-72 & HE-73 & HE-74 & HE-75 & HE-76 & HE-77 & HE-78 & HE-79 & HE-80 & HE-81 & HE-82 & HE-83 & HE-84 & HE-85 & HE-86 & HE-87 & HE-88 & HE-89 & HE-90 & HE-91 & HE-92 & HE-93 & HE-94 & HE-95 & HE-96 & HE-97 & HE-98 & HE-99 & HE-100 & HE-101 & HE-102 & HE-103 & HE-104 & HE-105 & HE-106 & HE-107 & HE-108 & HE-109 & HE-110 & HE-111 & HE-112 & HE-113 & HE-114 & HE-115 & HE-116 & HE-117 & HE-118 & HE-119 & HE-120 & HE-121 & HE-122 & HE-123 & HE-124 & HE-125 & HE-126 & HE-127 & HE-128 & HE-129 & HE-130 & HE-131 & HE-132 & HE-133 & HE-134 & HE-135 & HE-136 & HE-137 & HE-138 & HE-139 & HE-140 & HE-141 & HE-142 & HE-143 & HE-144 & HE-145 & HE-146 & HE-147 & HE-148 & HE-149 & HE-150 & HE-151 & HE-152 & HE-153 & HE-154 & HE-155 & HE-156 & HE-157 & HE-158 & HE-159 & HE-160 & HE-161 & HE-162 & HE-163 & HE-164 & HE-165 & HE-166 & HE-167 & HE-168 & HE-169 & HE-170 & HE-171 & HE-172 & HE-173 & HE-174 & HE-175 & HE-176 & HE-177 & HE-178 & HE-179 & HE-180 & HE-181 & HE-182 & HE-183 & HE-184 & HE-185 & HE-186 & HE-187 & HE-188 & HE-189 & HE-190 & HE-191 & HE-192 & HE-193 & HE-194 & HE-195 & HE-196 & HE-197 & HE-198 & HE-199 & HE-200 & HE-201 & HE-202 & HE-203 & HE-204 & HE-205 & HE-206 & HE-207 & HE-208 & HE-209 & HE-210 & HE-211 & HE-212 & HE-213 & HE-214 & HE-215 & HE-216 & HE-217 & HE-218 & HE-219 & HE-220 & HE-221 & HE-222 & HE-223 & HE-224 & HE-225 & HE-226 & HE-227 & HE-228 & HE-229 & HE-230 & HE-231 & HE-232 & HE-233 & HE-234 & HE-235 & HE-236 & HE-237 & HE-238 & HE-239 & HE-240 & HE-241 & HE-242 & HE-243 & HE-244 & HE-245 & HE-246 & HE-247 & HE-248 & HE-249 & HE-250 & HE-251 & HE-252 & HE-253 & HE-254 & HE-255 & HE-256 & HE-257 & HE-258 & HE-259 & HE-260 & HE-261 & HE-262 & HE-263 & HE-264 & HE-265 & HE-266 & HE-267 & HE-268 & HE-269 & HE-270 & HE-271 & HE-272 & HE-273 & HE-274 & HE-275 & HE-276 & HE-277 & HE-278 & HE-279 & HE-280 & HE-281 & HE-282 & HE-283 & HE-284 & HE-285 & HE-286 & HE-287 & HE-288 & HE-289 & HE-290 & HE-291 & HE-292 & HE-293 & HE-294 & HE-295 & HE-296 & HE-297 & HE-298 & HE-299 & HE-300 & HE-301 & HE-302 & HE-303 & HE-304 & HE-305 & HE-306 & HE-307 & HE-308 & HE-309 & HE-310 & HE-311 & HE-312 & HE-313 & HE-314 & HE-315 & HE-316 & HE-317 & HE-318 & HE-319 & HE-320 & HE-321 & HE-322 & HE-323 & HE-324 & HE-325 & HE-326 & HE-327 & HE-328 & HE-329 & HE-330 & HE-331 & HE-332 & HE-333 & HE-334 & HE-335 & HE-336 & HE-337 & HE-338 & HE-339 & HE-340 & HE-341 & HE-342 & HE-343 & HE-344 & HE-345 & HE-346 & HE-347 & HE-348 & HE-349 & HE-350 & HE-351 & HE-352 & HE-353 & HE-354 & HE-355 & HE-356 & HE-357 & HE-358 & HE-359 & HE-360 & HE-361 & HE-362 & HE-363 & HE-364 & HE-365 & HE-366 & HE-367 & HE-368 & HE-369 & HE-370 & HE-371 & HE-372 & HE-373 & HE-374 & HE-375 & HE-376 & HE-377 & HE-378 & HE-379 & HE-380 & HE-381 & HE-382 & HE-383 & HE-384 & HE-385 & HE-386 & HE-387 & HE-388 & HE-389 & HE-390 & HE-391 & HE-392 & HE-393 & HE-394 & HE-395 & HE-396 & HE-397 & HE-398 & HE-399 & HE-400 & HE-401 & HE-402 & HE-403 & HE-404 & HE-405 & HE-406 & HE-407 & HE-408 & HE-409 & HE-410 & HE-411 & HE-412 & HE-413 & HE-414 & HE-415 & HE-416 & HE-417 & HE-418 & HE-419 & HE-420 & HE-421 & HE-422 & HE-423 & HE-424 & HE-425 & HE-426 & HE-427 & HE-428 & HE-429 & HE-430 & HE-431 & HE-432 & HE-433 & HE-434 & HE-435 & HE-436 & HE-437 & HE-438 & HE-439 & HE-440 & HE-441 & HE-442 & HE-443 & HE-444 & HE-445 & HE-446 & HE-447 & HE-448 & HE-449 & HE-450 & HE-451 & HE-452 & HE-453 & HE-454 & HE-455 & HE-456 & HE-457 & HE-458 & HE-459 & HE-460 & HE-461 & HE-462 & HE-463 & HE-464 & HE-465 & HE-466 & HE-467 & HE-468 & HE-469 & HE-470 & HE-471 & HE-472 & HE-473 & HE-474 & HE-475 & HE-476 & HE-477 & HE-478 & HE-479 & HE-480 & HE-481 & HE-482 & HE-483 & HE-484 & HE-485 & HE-486 & HE-487 & HE-488 & HE-489 & HE-490 & HE-491 & HE-492 & HE-493 & HE-494 & HE-495 & HE-496 & HE-497 & HE-498 & HE-499 & HE-500 & HE-501 & HE-502 & HE-503 & HE-504 & HE-505 & HE-506 & HE-507 & HE-508 & HE-509 & HE-510 & HE-511 & HE-512 & HE-513 & HE-514 & HE-515 & HE-516 & HE-517 & HE-518 & HE-519 & HE-520 & HE-521 & HE-522 & HE-523 & HE-524 & HE-525 & HE-526 & HE-527 & HE-528 & HE-529 & HE-530 & HE-531 & HE-532 & HE-533 & HE-534 & HE-535 & HE-536 & HE-537 & HE-538 & HE-539 & HE-540 & HE-541 & HE-542 & HE-543 & HE-5

MANUFACTURED BY
WYATT INDUSTRIES, INC.

HOUSTON CORPUS CHRISTI DALLAS



P X R

NO C.A.
WT. 6700
YEAR BUILT

1964

FULL VAC. @ 400°

MAX. WORKING
PRESSURE

25

MAX. TEMP.

400°

MANUFACTURER
SERIAL NO.

C-2651-64

96" I.D. x 11'-0" S-S

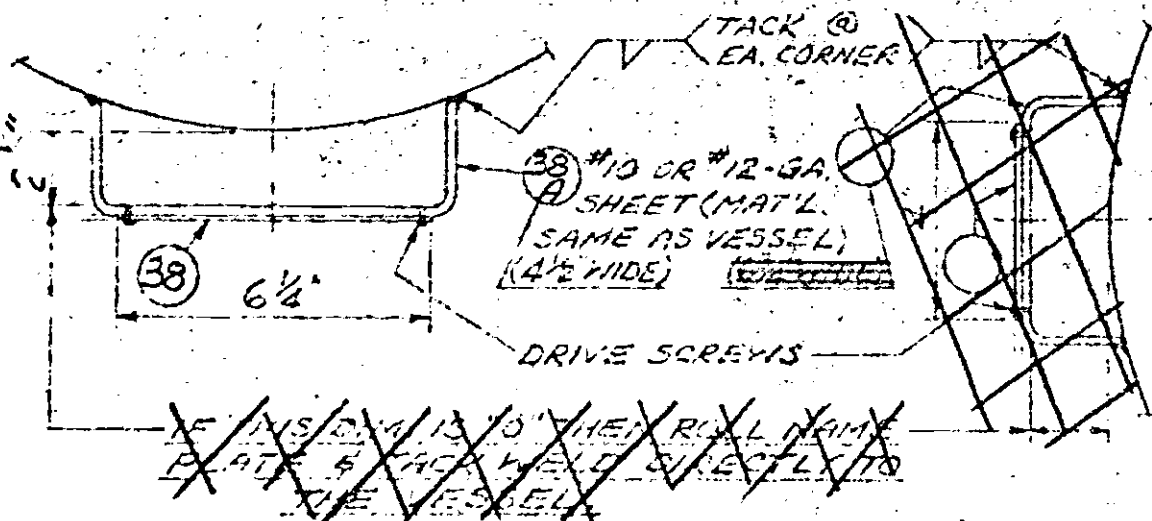
VESSEL #24V-383

95845

REFERENCE DRAWING

PLAN & ELEV. --- WCE-2651-1

38 WYATT'S STD. STAINLESS
STEEL CODE NAME PLATE



BRACKET FOR
VERTICAL VESSELS

BRACKET FOR
HORIZONTAL VESSELS

PROJECT 2584 ITEM V-383
C4-213-24-32 REV 1

NO.	REVISION	DATE	BY	CHK
S/O C-2651				
WYATT METAL & SOILER WORKS INC.				
DALLAS, TEXAS • HOUSTON, TEXAS CORPUS CHRISTI, TEXAS				
NAME PLATE FACSIMILE & BRACKET				
CUSTOMER C.F. BRAUN & CO. ITEM P.C. NO. 25841-04-213-21 24V-383				
DRAWN BN SCALE DATE 4-13-64				
CHECKED RSH DATE				
APPROVED No. WCA-2651				

(2) SHOWN 6-12-64
(1) REPAIRED

(1) SHOWN 4-15-64

FORM U-1A MANUFACTURERS' DATA REPORT FOR UNFIRED PRESSURE VESSELS

Alternate Form for Single Chamber Completely Shop-Fabricated Vessels Only

1. Manufactured by Wyatt Industries, Inc., CORPUS CHRISTI, TEXAS
(Name and address of Manufacturer)

2. Manufactured for C.E. BRAUN & CO., ALHAMBRA, CALIF.
(Name and address of Purchaser)

3. Type VERT. Vessel No. (C-2651-64) (Mfrs. Serial) (State & State No.) Natl. Bd. No. _____ Yr. Built 1964

4. SHELL: Matl. SA-240-T347 T.S. 75,000 Nom. 1/4 In. Cor. Allow NO In. Diam. 8 Ft. 0 In. Length 11 Ft. 0 In.
(Kind and Spec. No.) (Plg. or P.B. & Spec. Min. T.S.)

5. SEAMS: Long DSL BUTT WELD T. NO X.R. SPOT Sectioned NO Efficiency 85 %
(Welded, Dbl., Single, Lap, Butt) (Yes or No) (Spot or Complete) (Yes or No)
Girth DSL BUTT WELD T. NO X.R. SPOT Sectioned NO No. of Courses 2

6. HEADS: (a) Material SA-240-T347 T.S. 75,000 (b) Material SA-240-T347 T.S. 75,000

Location (Top, bottom, ends)	Thickness	Crown Radius	Knuckle Radius	Elliptical Ratio	Conical Apex Angle	Hemispherical Radius	Flat Diameter	Side to Pressure (Convex or Concave)
(a) <u>TOP</u>	<u>5/16" MIN.</u>	<u>96"</u>	<u>6 1/2"</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>CONCAVE</u>
(b) <u>BOTM</u>	<u>5/16" MIN.</u>	<u>96"</u>	<u>6 1/2"</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>CONCAVE</u>

If removable, bolts used _____ Other fastening _____
(Material, Spec. No., T.S., Size, Number) (Describe or Attach Sketch)

7. Constructed for max. allowable working press. 25 psi. at max. temp. 400 °F. Min. temp. (when less than -20°) _____ °F. Hydrostatic Test Press. 75 psi.
(Full W.C. @ 400° F.) (Pneumatic) (Test)

8. SAFETY OR RELIEF VALVE OUTLETS: Number _____ Size _____ Location IN LINE

9. NOZZLES:

Purpose (Inlet, Outlet, Drain)	Number	Diam. or Size	Type	Material	Thickness	Reinforcement Material	How Attached
<u>VAPOR OUT</u>	<u>1</u>	<u>6"-150"</u>	<u>SO FLG</u>	<u>SA-182-F347</u>	<u>.280"</u>	<u>SA-312-TP347</u>	<u>WELDED</u>
<u>RELIATOR IN</u>	<u>1</u>	<u>12"-150"</u>	<u>SO FLG</u>	<u>SA-182-F347</u>	<u>.280"</u>	<u>SA-312-TP347</u>	<u>WELDED</u>
<u>LIGHT</u>	<u>1</u>	<u>8"-150"</u>	<u>SO FLG</u>	<u>SA-182-F347</u>	<u>.280"</u>	<u>SA-312-TP347</u>	<u>WELDED</u>
<u>EXP. MONITOR IN</u>	<u>5</u>	<u>1/2"-150"</u>	<u>SO FLG</u>	<u>SA-182-F347</u>	<u>.145"</u>	<u>SA-312-TP347</u>	<u>WELDED</u>
<u>LID IN</u>	<u>1</u>	<u>1"-150"</u>	<u>SO FLG</u>	<u>SA-182-F347</u>	<u>.179"</u>	<u>SA-312-TP347</u>	<u>WELDED</u>
<u>STEAM OUT IN</u>	<u>2</u>	<u>2"-150"</u>	<u>SO FLG</u>	<u>SA-182-F347</u>	<u>.154"</u>	<u>SA-312-TP347</u>	<u>WELDED</u>
<u>TEMPERATURE</u>	<u>1</u>	<u>1/2" NPT</u>	<u>R-276-T347</u>	<u>.470"</u>	<u>R-276-T347</u>	<u>WELDED</u>	<u>WELDED</u>
<u>LOWALIZER</u>	<u>1</u>	<u>3/4"-150"</u>	<u>SO FLG</u>	<u>SA-182-F347</u>	<u>.154"</u>	<u>SA-312-TP347</u>	<u>WELDED</u>

10. INSPECTION Manholes, No. 1 Size 20" Location TOP HEAD
OPENINGS: Handholes, No. 1 Size 8" Location IN MANHOLE COVER
Threaded, No. _____ Size _____ Location _____

11. SUPPORTS: Skirt NO Lugs 4 Legs _____ Other _____ Attached SHELL - WELDED
(Yes or No) (Number) (Number) (Describe) (Where & How)

12. REMARKS: 96" ID. PURGE CRYSTALLIZER #1
ITEM # 24V-383

#95845

(Brief description of purpose of the vessel as Air Tank, Water Tank, L.P.G., Etc.—State Contents.)
* If postweld heat-treated.
* List other internal or external pressures with coincident temperature when applicable.

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 JULY 28, 1964 Signed WYATT INDUSTRIES, INC. By A. Q. Breyer
(Manufacturer)

Certificate of Authorization Expires DEC 31, 1964

CERTIFICATE OF SHOP INSPECTION

VESSEL MADE BY WYATT INDUSTRIES, INC. at CORPUS CHRISTI, TEXAS
I, the undersigned, holding a valid commission issued by the National Board of Boiler and Pressure Vessel Inspectors and/or the State of TEXAS and employed by HARTFORD STM. BOILER INSP. & INS. CO. of HARTFORD, CONN. have inspected the pressure vessel described in this manufacturer's data report on JULY 28, 1964, 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 JULY 28, 1964

FRED P. MASSEY
Inspector's Signature

Commissions

TEXAS # 477
Not a Board or State and No.