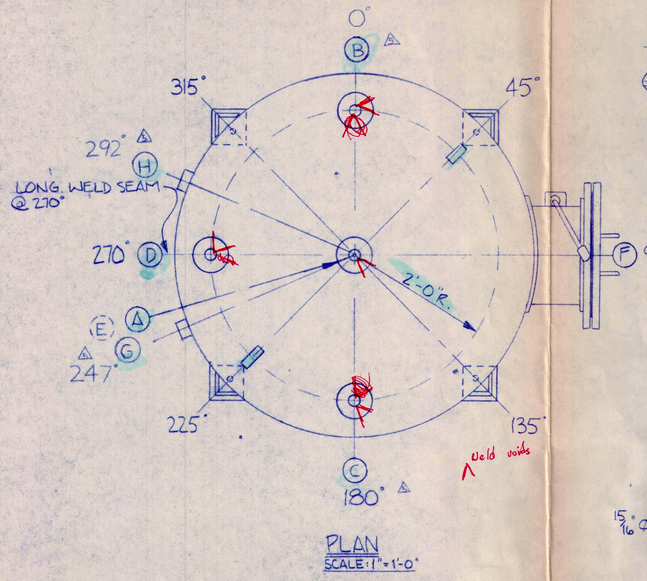
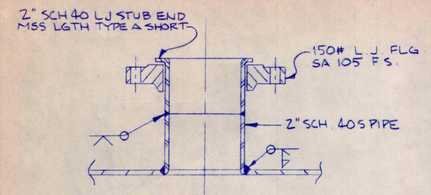
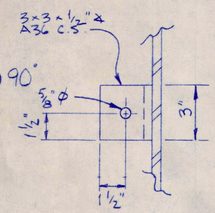
232102 GA



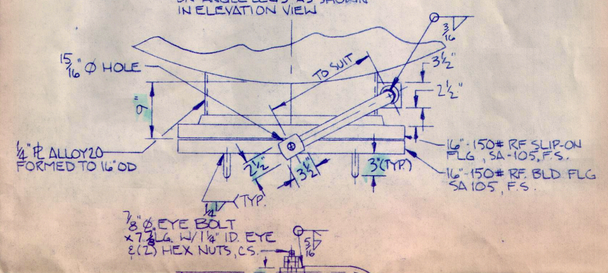
PLAN
SCALE: 1" = 1'-0"

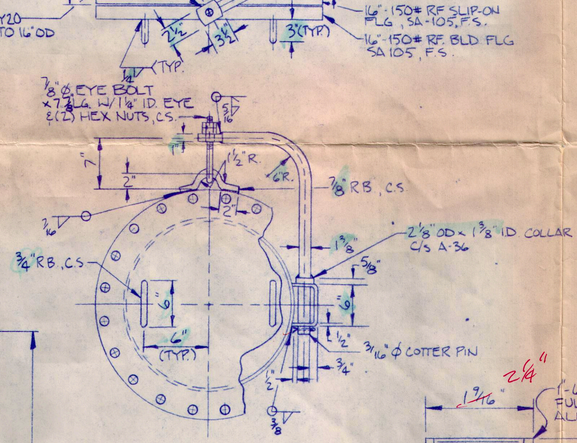


TYP. NOZZ. DETAIL
NO SCALE

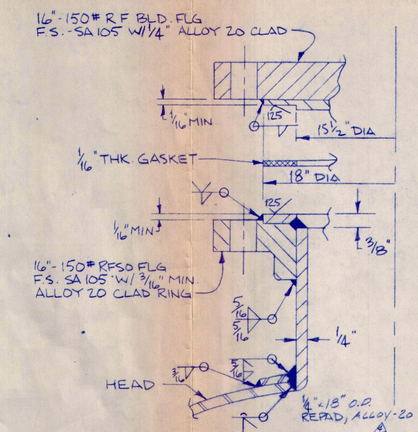


GROUNDING CLIP
SCALE: 3" = 1'-0"
(2) REQ'D LOCATE @ 45° & 225° ON ANGLE LEGS AS SHOWN IN ELEVATION VIEW

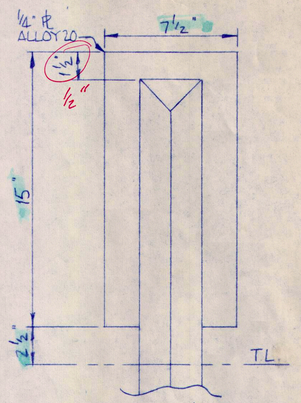




DAVIT ARM DETAIL
SCALE: NONE

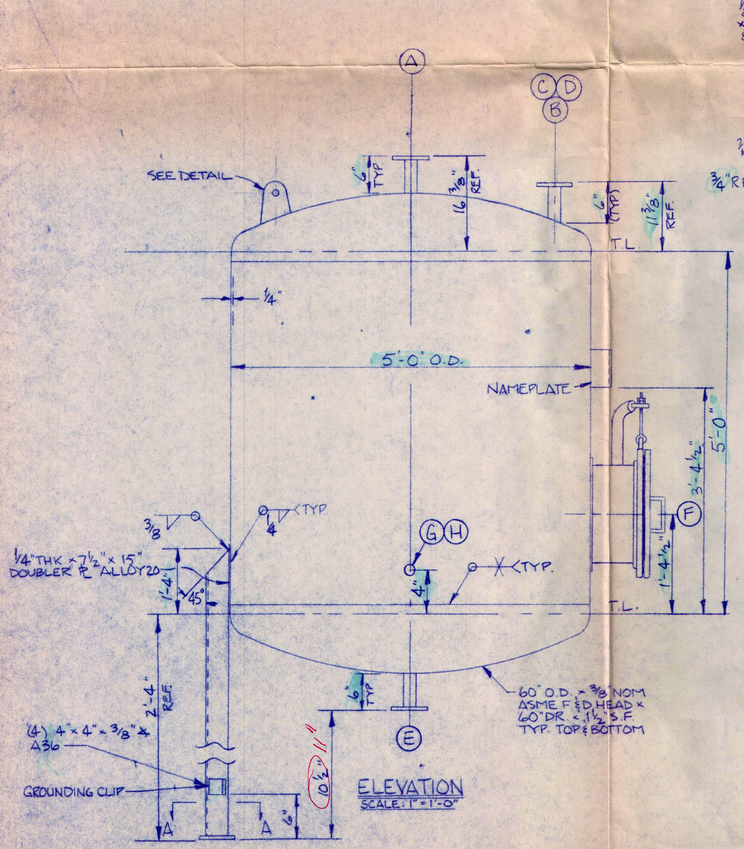


MANWAY DETAIL
NO SCALE



DOUBLER PL DETAIL
SCALE: 3" = 1'-0"

CPLG DETAIL
SCALE: FULL



ELEVATION
SCALE: 1" = 1'-0"

SECTION 'A-A'
SCALE: NONE

NOTE: DRILL HOLES AFTER LEGS ARE ATTACHED TO TANK LOCATED @ 45°, 135°, 225° & 315°

LIFTING LUG DETAIL
SCALE: 3" = 1'-0"
(2) REQ'D LOCATE @ 45° & 225° ON 2'-0" RADIUS - ℄ TANK TO ℄ 2" HOLE

NOZZLE SCHEDULE

MK.	SIZE	QUAN.	NOZZLE FLG. TYPE	NOZZLE FLG. RAT'G	NOZZLE FLG. MAT'L	NECK SCH.	NECK MAT'L	RE-PAD THK.	RE-PAD O.D.	PROJ.	ORIENT.	SERVICE
A*	2"	1	LJ	150#	SA105	40	ALLOY 20			SEE ELEV	T.CTR.	INLET
B	2"	1									T 0°	INLET
C	2"	1									T 180°	INLET
D	2"	1									T 270°	RELIEF
E	2"	1	↓	↓	↓	↓	↓			↓	B.CTR.	OUTLET
F	16"	1	RFSO	↓	FS W/ CLAD	1/4"	↓	1/2"	18"	9"	90°	MANWAY
G	1"	1	CPLG	6000#						SEE ELEV	247°	SAMPLE
H	1"	1	CPLG	↓						↓	292°	THERMOWELL

DESIGN DATA

DESIGN CONDITIONS:
- SHELL: FV & 100 Psig @ 366 °F
- COIL: Psig @ °F
- JACKET/TUBE SIDE: Psig @ °F

HYDROSTATIC TEST:
- SHELL: 150 Psig
- COIL: Psig
- JACKET/TUBE SIDE: Psig

SPECIFIED CORROSION ALLOWANCE: NONE
RADIOGRAPHY: SPOT STRESS RELIEF: NO
MAWP: FV & 100 Psig LIMITED BY: HEADS
CODE: ASME SECT VIII, DIV. 1 A87 STAMP: YES
TYPE HEADS:
- SHELL 3/8" NOM ASME F & D
- JACKET/TUBE SIDE:

JOINT EFFICIENCY: SHELL: 85% HEADS: 100%
SHIPPING WT.: 2450# TEST WT.: 10,130#

MATERIALS

- SHELL: VESSEL: ALLOY 20 SB-463-20CB
- JACKET/TUBE SIDE:
- HEADS: VESSEL: ALLOY 20 SB-463-20CB
- JACKET/TUBE SIDE:
- TUBES:
- TUBE SHEETS:
- BAFFLES:
- TIE RODS:
- FLANGE SPEC.: F.S. SA-105
- RATING: 150#
- FACING: L.J
- EXTERNAL PIPE SPEC.: ALLOY 20 SB-463-20CB
- INTERNAL PIPE SPEC.:
- CLADDING OR LINING SPEC.:
- BOLTING: SA 193 B7 & SA 194-2H
- GASKETS: 1/16" GARLOCK 3200
- SUPPORTS: A36 C.S W/ ALLOY 20 DOUBLER PL
- INSULATION: NONE
- PAINTING: C.S PARTS: ONE S/C CARBOLINE CARBOMASTIC 15
  ALLOY PARTS: SANDBLAST ENTIRE EXTERIOR
  SANDBLAST INTERIOR WELDS ONLY.

NOTES

1. ELEVATIONS MEASURED FROM BASE LINE.
2. ORIENTATION MEASURED CLOCKWISE FROM 0°
3. PROJECT MEASURED FROM (CENTERLINE) (OUTSIDE) OF VESSEL TO EXTREME FACE OF FLANGE.
4. NOZZLE BOLT HOLES TO STRADDLE 0°-180° CENTERLINE OR ITS PARALLEL UNLESS NOTED OTHERWISE.
5. COVER ALL FLANGES, OPENINGS AND MACHINED SURFACES PRIOR TO SHIPMENT UNLESS NOTED OTHERWISE.
6. WELDING PROCEDURES:
   - #2 SMAW ALLOY 20 TO ALLOY 20
   - #105 SMAW ALLOY 20 TO C.S.
   - #27 GTAW ALLOY 20 TO ALLOY 20
7. BUILT IN ACCORDANCE WITH ETHYL SPEC # SP-11-1

NAT'L BD. SERIAL NO. LATER
FABRICATED & CERTIFIED BY
WARD TANK CORPORATION
CHARLOTTE N. C.

RT 3	Shell	MAWP: FV & 100 PSI @ 366 °F	
	Jkt/Tube Side	MAWP: PSI @ °F	
Shell	Min. Design Metal Temp:	°F @	PSI
JKT./TUBE SIDE	Min. Design Metal Temp:	°F @	PSI
TEST PRESS.	SHELL: 150 PSI	JKT/TUBE SIDE:	PSI
MFGR'S S. N.	W-1217	YR. BUILT:	1989
CUSTOMER	HARDWICKE CHEM CO.		
P.O. NO.	54577	DATE:	8-3-89
NOMENCLATURE	800 GALLON RECIEVER		
EQUIP. NO.			

NAMEPLATE DETAIL
SCALE: FULL
LOCATE @ 90°

CERTIFIED PRINT
WARD TANK CORPORATION
By:
Date: OCT 02 1989

REV. NO.	DATE	DESCRIPTION	BY
4	8-18-89	CHANGED MATL & DIA. OF REPAD	TW
3	8-16-89	DES. CLIP LOCATION & ADDED DIM	JGW
2	8-11-89	ADDED DAVIT ARM	JGW
1	8-8-89	NOZZLE ORIENTATION	JGW
5	7-1-89	NOZZLE ORIENTATION	GK

WARD TANK CORPORATION
CHARLOTTE NORTH CAROLINA

CUSTOMER: HARDWICKE CHEM CO.	PURCHASE ORDER NUMBER: 54577
TITLE: 800 GALLON RECIEVER	
EQUIPMENT NO.	NO. REQ'D. (ONE) 1
SCALE: AS NOTED	DATE: 8-3-89
DRAWN BY: JGW	DRAWING NUMBER: 89-W-1217
REV. NO. 5	SHEET 1 OF 1

DA-01