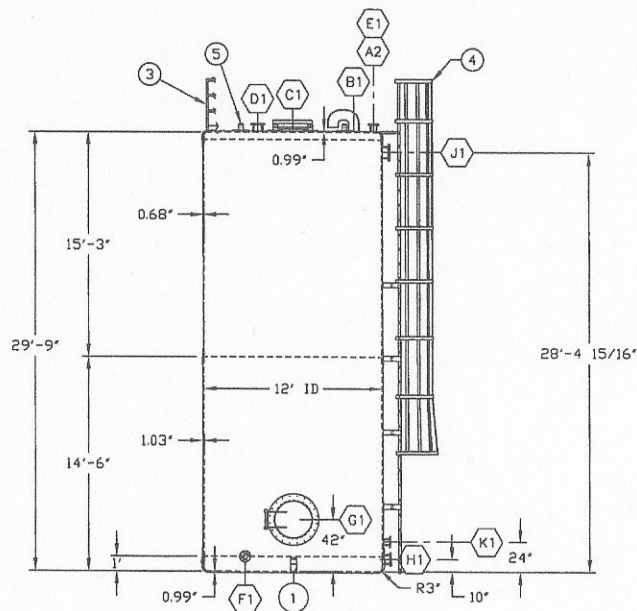


PLAN VIEW



ELEVATION VIEW

See Plan View for Orientation

DESIGN PARAMETERS

DESIGN PRESSURE - DIRECTLY VENTED
DESIGN VACUUM - DIRECTLY VENTED
DESIGN TEMPERATURE - 120°F MAX
SPECIFIC GRAVITY - 1.25
SEISMIC LOADING per ASCE 7-10
WIND LOADING - 115 MPH

FITTING SCHEDULE:

MK.	DL.	QTY	FLANGE THICKNESS	DRILLING	NOZZLE PROJ.	REINFORCEMENT OD/THK	SERVICE
A2	4" w/ Drop Pipe	1	1/2"	150#	6"	-	INLET
B1	8"	4	-	-	-	-	VENT w/SCREENED GOOSENECK
C1	24"	1	1/2"	150#	6"	-	HINGED TOP MANWAY
D1	6"	1	9/16"	150#	6"	-	-
E1	4"	1	1/2"	150#	6"	-	-
F1	4"	2	1/2"	150#	6"	10.0" OD/0.50"	SYPHON PUMP SUCTION
G1	30"	1	1-1/4"	150#	6"	60.0" OD/0.68"	HINGED SIDE MANWAY
H1	6"	1	9/16"	150#	6"	12.0" OD/0.75"	SYPHON DRAIN
J1	8"	1	5/8"	150#	6"	-	OVERFLOW
K1	4"	1	1/2"	150#	6"	10" OD/0.48"	SPARE w/BLIND FLANGE
1	TYPE II-D	10	-	-	-	0.93"	FRP HOLD DOWN LUGS
2	TRUNION STYLE	2	-	-	-	0.58"	LIFTING LUGS
3	-	1	-	-	-	-	FRP HAND RAIL
4	-	1	-	-	-	-	CAGED LADDER
5	-	4	-	-	-	0.27"	STIFFENERS

NOTES:

- CURE SYSTEM: BPO/DMA FOR CORROSION LINER, CoNAP/MEKP FOR STRUCTURAL LAMINATE.
- EXTERIOR: SHERWIN WILLIAMS LIGHT GREY ACRYLON 218 EPOXY PAINT.
- SHOP TESTING: FINAL CURE USING DRY HEAT FOR 9 HOURS @ 180°F.
- FIELD TESTING: FILL WITH WATER TO OVERFLOW AND HOLD FOR 24 HOURS, DRAIN, CLEAN AND INSPECT.
- TANK TOP TO HAVE A 360° FRP HANDRAIL PERIMETER SAFETY RAILING WITH A CAGED FRP SIDEWALL ACCESS LADDER MOUNTED TO TANK.
- TANK TOP SHALL HAVE A HEAVY CORROSION RESISTANT NON-SKID SURFACE APPLIED TO ALL WALK AREAS.
- FASTENERS: TEFLON COATED 316SS FOR ALL MATING FLANGES SUPPLIED WITH FABRICATION.
- VESSELS MUST BE DIRECTLY VENTED TO ATMOSPHERE USING A HARD LAMINATED (NOT FLANGED) GOOSENECK OR MUSHROOM VENT. AT NO TIME MAY THE VENT BE CONNECTED TO A FUME COLLECTION SYSTEM. VESSELS MUST BE EQUIPPED WITH AN OVERFLOW WHICH MUST NOT BE DISCHARGED UNDER LIQUID OR CONNECTED TO A PIPING SYSTEM WHICH MIGHT BE CLOGGED WITH ICE, SLUDGE, ANIMAL NEST, ETC. VENT AND OVERFLOW OPEN AREAS EACH MUST EXCEED COMBINED AREAS OF ALL NOZZLES (IN WORST CASE UPSET CONDITION). IF ADDITIONAL NOZZLES ARE ADDED, OVERFLOW AND VENT SIZES SHOULD BE REVIEWED. END USERS PERSONAL MUST BE INSTRUCTED NOT TO CLOSE, BYPASS, RESTRICT OR ALTER VENTING AND OVERFLOW SYSTEMS. FAILURE TO FOLLOW THIS RECOMMENDATION COULD RESULT IN TANK LEAKAGE, SPILLS OR CATASTROPHIC FAILURE.
- VESSEL IS NOT DESIGNED FOR EXTERNAL FLOODING OF CONTAINMENT AREA.
- THE MINIMUM CORROSION BARRIER THICKNESS IS 0.25 INCH. THE FABRICATOR MAY ELECT TO USE A THICKER CORROSION BARRIER IN SOME OR ALL OF THE VESSEL COMPONENTS.

LAMINATE SEQUENCES:

CONTACT MOLDED:

- 1.03' - V,N,5C,2(3(CR)C),2(CR)CC -- Lower Cyl Shell
- 0.68' - V,N,5C,2(CR)C,CRCC -- Upper Cyl Shell
- 0.99' - V,N,5C,2(3(CR)C),2(CR)C -- FLAT BOTTOM
- 0.99' - V,N,5C,2(3(CR)C),2(CR)C -- FLAT TOP
- 1.77' - V,N,5C,5(3(CR)C),CRCC -- BTM KNUCKLE

JOINTS:

- 0.78' - 2(3(MR)),2(MR)MM -- BTM KNUCKLE TO SHELL
- 0.43' - 3(MR)M,MRMM -- SHELL 1 TO SHELL 2
- 0.39' - 3(MR)M,MRM -- SHELL 2 TO FLAT TOP

JOINTS ARE NOT REQUIRED FOR COMPONENTS WHICH ARE WOUND TOGETHER.

LEGEND:

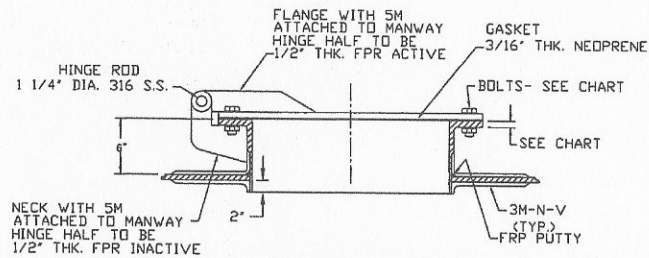
- V - C-GLASS VEIL, N - NEXUS VEIL, CV - CARBON VEIL
- C - 0.043 CHOP LAYER OR MAT
- M - 1-1/2 oz/sq ft MAT
- R - 24 oz/sq yd WOVEN ROVING

RESIN:

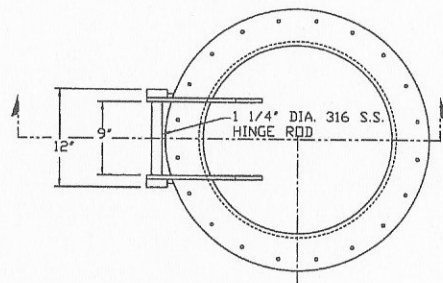
DERAKANE 411-350



SUBMITTED FOR APPROVAL		F.D.B.	
CUSTOMER	FILE	SCALE	N/A
	12' x 29'-9"	DR	DATE
	NoOC	FDB	
	STORAGE TANK	CR	DATE
	T-2199		
DATE	PR NO	SPR NO	SHEET

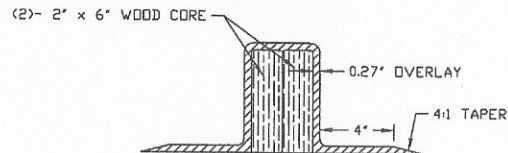


SECTION VIEW



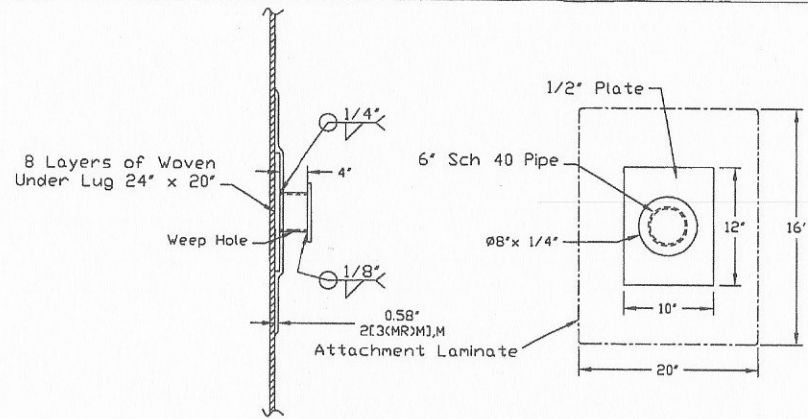
HINGED MANWAY

SIZE	HOLE PATTERN	HOLES REQ'D.	FLANGE THK.
24" MANWAY	29½"Ø	20	1½"
30" MANWAY	36"Ø	28	1¾"

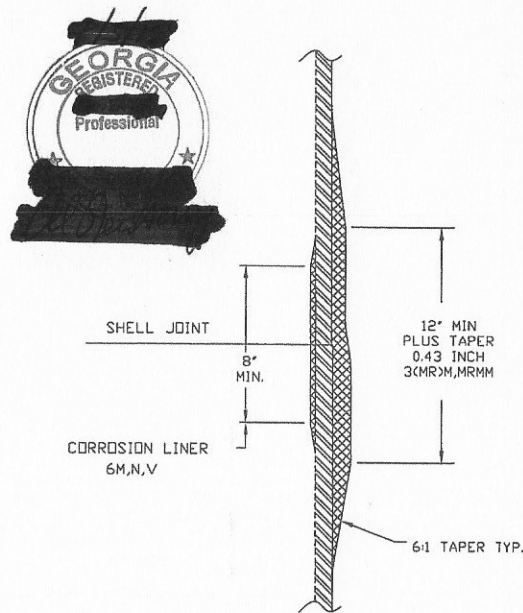


STIFFENER DETAIL

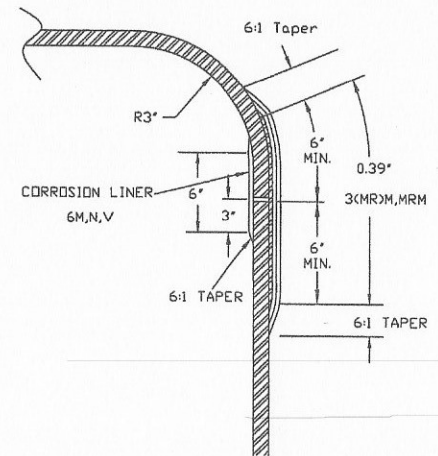
2 REQ'D. - 134.25' LONG
2 REQ'D. - 108' LONG



TRUNION STYLE LIFTING LUG DETAIL



SHELL-SHELL JOINT DETAIL

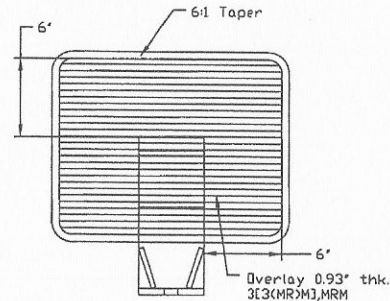
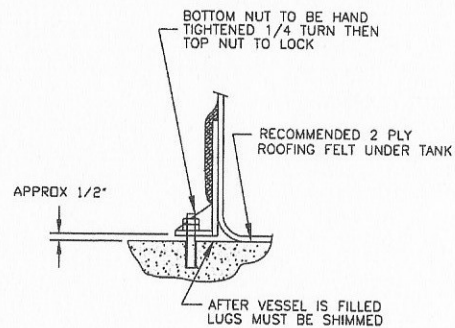
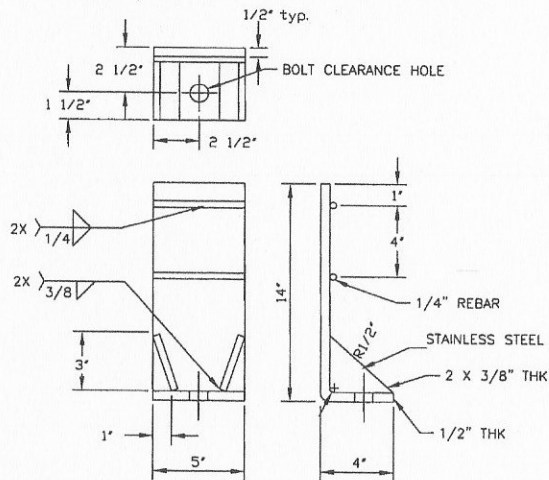


TOP HEAD-SHELL JOINT DETAIL

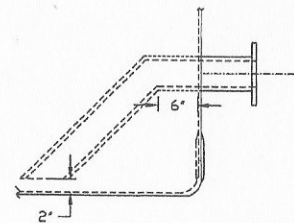
REV 0	Submitted for Approval	F.D.B.	REV 001
CUSTOMER	[REDACTED]		
TITLE	12' x 29'-9\"/>		
SCALE	N/A		
DATE	[REDACTED]		
DESIGNER	[REDACTED]		
CHECKED	[REDACTED]		
DATE	[REDACTED]		
APPROVED	[REDACTED]		
DATE	[REDACTED]		
FRP	[REDACTED]		

**HOLD DOWN TYPE II-D
MATERIAL: 316SS**

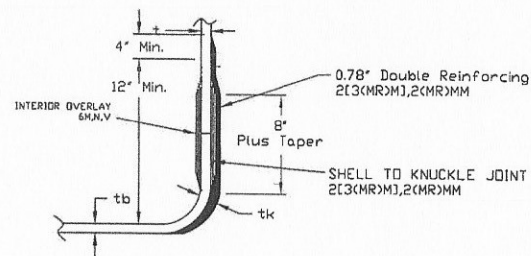
CAPACITY = 12,500 LBS.



HOLD DOWN LUG DETAIL

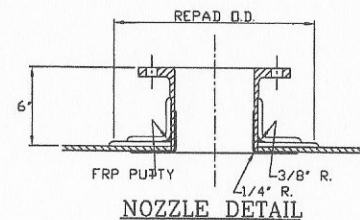
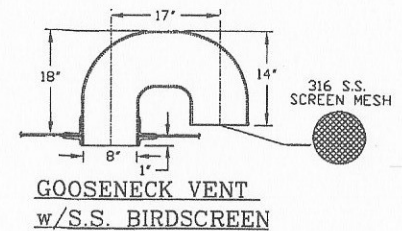


SIPHON OUTLET NOZZLE DETAIL



t= shell thk. (1.03")
tb= bottom thk. (0.99")
tk= (1.77")

**JOINED HEAD TO HAND
LAY-UP SHELL DETAIL**



SUBMITTED FOR APPROVAL		REV. DATE	
CUSTOMER	DATE	SCALE	N/A
12' x 29'-9"		OR	FDB
NaOCI		DATE	
STORAGE TANK		OR	INTER
T-2199		DETAILS	
MATERIAL		FRP	