

TRANSWORLD
Equipment Corp.
Intermodal Equipment Specialists



24,000 LITER

20 FT BITUMEN TANK

1.0 DESIGN SPECIFICATION

TANK TYPE	:	20 FT ISO UN Universal beam tank
CAPACITY	:	24,000 liters
TARE	:	5,420 kg nominal
MAX GROSS	:	36,000 kg
PRODUCTS	:	Bitumen
MAWP	:	1.77 bar
TEST PRESSURE	:	2.65 bar
EXTERNAL PRESSURE	:	0.41 bar
VESSEL DESIGN TEMP	:	-40C to 170C
TYPE APPROVALS	:	T3 UN portable tank (US DOT, UK DFT, ADR/RID) UIC TIR, CSC, FRA, AAR600,TC.
CLASSIFICATION	:	Bureau Veritas or Lloyd's Register

2.0 VESSEL

DESIGN CODE	:	ASMEVIII DIV. 1 where applicable
MATERIAL	:	Material: 16MnDR Shell thk. 7mm. including corrosion allowance: 1mm End thk. 8mm (before forming). Including corrosion Allowance: 1mm
SURFACE POLISH	:	Base 400 mm of circumferential seams ground flush. Fillet welds on tank fitting ground smooth where necessary. .

3.0 FRAME

TYPE	:	ISO 1496/3 (ICC) without saddles
MATERIAL	:	RHS to DIN 59411 St52-3 or equivalent
WALKWAY	:	1 longitudinal full length and 3 transverse full widths, 475 mm wide marine grade aluminum (E" Style.).

4.0 COMPONENTS

SAFETY RELIEF VALVE	:	2 X 2 ½” pressure only valve set at 2.21/-0.21 bar with Flameproof gauze.
MANLID	:	500mm dia hinged 6 point manlid
GASKET	:	Viton
DIPSTICK	:	Not required
AIRLINE	:	1 ½” ball valve to 1 ½” BSP dustcap
TOP OUTLET	:	4” tank pad complete with blank flange to 3” BSP dustcap.
BOTTOM OUTLET	:	2” brass flange gate valve to 2” blind flange.
HEATING	:	2 set fire tube for burner. The tank inside shall be fitted with two pairs of heating Pipes running from rear to front and exhaust at the top. Heating pipes are fastened by “U” bolts. Diameter of Heating pipes is 219mm (at flame area) and 159mm (at other Area).
SPILLAGE AREAS	:	Two spillboxes are fitted, one in the middle with manhole, airline, Sensor assembly and safety valves, and one at the front with top inlet. The spillboxes are fitted with lockable and sealable stainless steel covers. Tray manufactured from 3.0mm thk carbon steel complete with stainless steel drain tubes.
DOCUMENT HOLDER	:	70 X 310mm plastic document holder fitted to rear end frame.
SENSOR PROVISION	:	2 X 0.5” thread type sensor bracket and plug. One fitted on the top of vessel and one fitted at rear of vessel.
THERMOMETER	:	Glycerin filled analogue thermometer, range from -40C to +200C

5.0 INSULATION & CLADDING

INSULATION BARREL & ENDS	:	50mm rock wool where possible on barrel and ends. Compressed rock wool under the stainless steel banding.
CLADDING	:	0.8mm thickness galvanized steel sheets.

6.0 EXTERNAL CORROSION PROTECTION

SHOTBLAST	:	SA 2 1/2" to framework
CARBON STEEL FRAMEWORK	:	Primer coat: Epicon Zinc SC B-2 Grey primer, 10 R1 microns DFT
OUTSIDE OF VESSEL AND STIFFENING RINGS	:	Intermediate coat: Epicon Zinc SC B-2 primer, 40 microns DFT Top coat: Silicon IZ Enamel TCT, 25 microns + 25 microns DFT. Total: 100 microns DFT
INSIDE OF VESSEL AND OUTSIDE OF HEATING TUBES	:	One coat: Epicon Zinc SC B-2 primer, 10 microns R1 DFT.

7.0 MARKINGS

DATA PLATES	:	Consolidated data plate, custom plate, calibration plate
STATUTORY DECALS	:	Supplied and fitted