



**TECHNICAL SPECIFICATION**

**CLIENT : OCI / TANKSPAN**

**SPECIFICATION NO: HO3-25.4.36-ENQB6289 Rev A**

®2

**DESCRIPTION : 51 X 25000 LITRE UN PORTABLE TANK**  
**SERIAL NOS:TASU 215066 TO 215116**

**WO 2442 Rev 2**

**1.0 Technical Characteristics**

**1.1 Design & Testing**

Tank	- in accordance with:	IMDG, CFR49, RID/ADR
	- type:	T11 UN Portable Tank
Frame	- in accordance with:	ISO Standard 1496/3
	- type:	HO3 Protected Beam Tank with RHS bottom side rails

		SI	US
<b>1.2</b>	<b>Nominal Capacity (± 0,75% Tolerance)</b>	<b>25000 l</b>	<b>6604 US gal</b>

**1.3 Frame Dimensions And Mass**

®2	MPGM	<b>36000 kg</b>	<b>79365 lbs</b>
	Tare Mass (Actual)	<b>3600 kg</b>	<b>7937 lbs</b>
	Length	6058 mm	20 ft
	Width	2438 mm	8 ft
	Height	2591 mm	8 ft 6 in

**1.4 Tank Dimensions**

Internal Diameter	2378 mm	93,622 in
Tan to Tan	4996 mm	196,693 in
Shell Minimum Thickness	4,6 mm	0,181 in
Head Minimum Thickness	4,6 mm	0,181 in
Corrosion Allowance	0 mm	0,0 in
Dished Ends- Torispherical	CROWN 2120 mm	KNUCKLE 250 mm
Reference Mild Steel Thickness CFR49 :178.270-5 (c) 6,35 mm		IMDG 6 mm

**1.5 Pressure & Temperature Rating**

Metallurgical Design Temp for Tank	: Max	<b>130 °C</b>	<b>266 °F</b>
	: Min	<b>-40 °C</b>	<b>-40 °F</b>
Maximum Allowable Working Pressure		4,0 bar	58,0 psig
Hydrostatic Test Pressure		6,0 bar	87,0 psig
Maximum External Pressure		0,41 bar	6,0 psig

**1.6 NDE (Non Destructive Examination)**

Shell	J.E.	= 0,85	Radiography	= spot
Ends	J.E.	= 1,00	Radiography	= full (100%)

Nozzle to shell junction welds to be dye penetrant tested.

**1.7 Material Of Construction**

Framework	:	Hollow section	EN 10210 S355 J2H / Supraform TM 380
		Plates	EN 10025 S355 K2G3C / Supraform TM 380
		Rolled section	EN 10025 S355 K2G3
Corner Castings			ISO Standard 1161
Shell			DIN 17441 W1.4401 C $\leq$ 0,03% <b>Cold Rolled 2B</b>
Heads			DIN 17440 W1.4406 C $\leq$ 0,03% <b>Hot Rolled, Polished</b>
Vacuum Stiffening Rings (2 off 3mm thick)			ASTM A240 Gr 304

**2.0 Tank Fittings And Accessories****2.1 Manhole**

- Supplier Swift
- Quantity One
- Dimensions 500mm ID
- Specification Stainless steel 316; 4 bar pressure rating; 8 point fixing
- Gasket Genuine PTFE braided gasket

**2.2 Safety Relief Valve Assembly**

- Supplier Fort Vale
- Quantity One
- Dimensions 2½" BSP MKIII Super Maxi Highflow, part No 010/16300
- Specification +4,4 bar (+63,8 psi) - pressure only valve without a gauze
- Gasket Adaptor flange = Klinger SIL C-4430/PTFE
- Remarks Provision is made for future fitting of a rupture disc and manometer

**2.3 Air Inlet Assembly**

- Supplier BTR / Gestra
- Quantity One
- Dimensions DN 40 (1½")
- Specification Stainless steel 316 ball valve, with 1½" BSP outlet and cap
- Gasket PTFE

**2.4 Top Discharge Provision**

- Supplier Consani
- Quantity One
- Dimensions DN 80 (3")
- Specification Stainless steel 316
- Gasket Klinger SIL C-4430 / PTFE
- Remarks Provision is made for the future fitting of a clamped 3" butterfly valve and a 3" syphon tube

**2.5 Thermometer**

- Supplier Consani
- Quantity One
- Dimensions 80mm dial diameter
- Specification Surface type. Dual scale - 20°C to 200°C / 0°F to 400°F

## 2.6 Bottom Discharge

- Supplier Fort Vale
- Quantity One
- Dimensions DN 80 (3") opening diameter
- Specification Internal valve - 30° Highlift foot valve, part No 830/3200  
External valve - clamped butterfly valve, part No 368/7000B, with a 3" BSP threaded connector closed by a stainless steel cap & retaining cable
- Gasket Klinger SIL C-4430 / PTFE
- Remarks A cable remote control is connected to the internal valve handle. Provision is made for the future fitting of a fusible link.

## 2.7 Protective Housing / Spillbox

- Supplier Consani
- Quantity Two
- Location Rear: Air inlet / top discharge  
Centre: Relief valve / manhole
- Specification ASTM A240 - 304 housing and hinged lockable lid. Each housing is provided with surface mounted PVC tubes draining to the bottom part of the container.

## 2.8 Steam Heating

- Supplier Consani
- Quantity Equivalent total area of 8m<sup>2</sup>
- Dimensions 8 Runs 110mm x 4700mm longitudinal channels with 3/4" BSP male threaded inlet and outlet connections
- Specification ASTM A240 - 316; 6 bar working pressure, hydrostatically tested at 10-bar

## 2.9 Insulation And Cladding

- Supplier Consani
- Quantity The complete tank is coated with anti-stress corrosion lacquer (15-25 micron DFT) prior to insulation.
- Specification Insulation: Shell: Mineralwool (55kg/m<sup>3</sup>) to a nominal overall thickness of 50mm  
Ends: Glasswool 50mm, density 16kg/m<sup>3</sup>  
  
Cladding: Shell: 0.8mm thick prepainted white aluminium (RAL 9010) (grade 5251) with sealed lapped joints  
Ends: 2mm GRP, white RAL9010

## 2.10 Walkways

- Supplier Consani
- Quantity One longitudinal, two lateral sections
- Dimensions 475mm wide
- Specification Marine resistant aluminium

## 2.11 Ladder

One ladder 300mm wide is provided on the right hand side of the rear end frame. The ladder rungs have an anti slip surface. The ladder is hot dip galvanised. A handgrip is provided at the top of the frame adjacent to the ladder.

## 2.12 Corner Protection

4-off per tank located at the top frame corners.

## 2.13 Earthing Connection

1 off stainless steel lug 60 x 50 x 2,5mm with 20mm hole, is located at the rear bottom end of the frame.

## 2.14 Document Holder

1-off clear PVC document holder is provided. The holder is water-resistant and is fixed in a position that affords adequate protection.

**2.15 Decals**

One set per tank as per code requirements. Owner logos supplied by client and applied by Consani.

**2.16 Data Plates**

One set of stainless steel data plates per tank as per code requirements

**2.17 Calibration**

Two calibration plates, one marked in cm/litres and the other in inches/US gallons, are mounted to the spillbox lid. A calibrated dipstick, marked in cm/inches, is mounted to the manhole neck. Top of tank is full which corresponds to zero on the calibration plate and dipstick.

**2.18 Top Rails**

Top longitudinal protection rails are integral with the frame.

**3.0 Finish**

<b>3.1 Shell</b>	Internal Shell Surface Longitudinal Welds Circular Welds	2B finish As welded. Bead penetrant fused, with bottom 400mm ground flush and polished to Ra = 1,3um max
<b>3.2 Dished Ends</b>	Internal Surface Weld Seams	Polished to Ra = 1,3um max Ground flush

**3.3 Cleaning**

On completion of fabrication, the vessel's internal surface is degreased, pickled, passivated and neutralised. A white cloth test will be performed on the internal surface to check for cleanliness. The opening points are sealed so that the tank is supplied clean and ready for use.

**3.4 Painting (Hempel or Consani approved system)**

The carbon steel frame components are shotblasted to SA 2½ and painted as follows:

First coat	Hempadur Zinc (1536)	30 micron min DFT
Intermediate coat	Hempadur Primer (1530)	30 micron min DFT
Final coat	Hempatex Hibuild (4641)	<u>70 micron min DFT</u>
	TOTAL	<u>130 micron min DFT</u>

Colour: as per client standard

**4.0 Test and Homologations**

1. These tank containers are constructed according to an approved design.
2. Each production unit is subject to testing and non-destructive examination as required by ASME VIII Division 1, UIC and Consani's own quality requirements. Each unit is inspected by the independent Inspection Authority, Bureau Veritas.
3. The tank container has been specially tested and approved for a stacking load of 86400 kg per corner post, which corresponds to nine-high stacking.

- 4. The UN portable tank fulfils the performance specification of the following International Organisation's regulations and recommendations and is supplied with their Approvals.

IMDG-IMO  
US DOT-CFR49  
RID/ADR

Additional approvals:

AAR 600  
CSC  
TC  
TIR / Customs  
UIC (34000kg with a superheavy decal)

5.0 **Documentation**

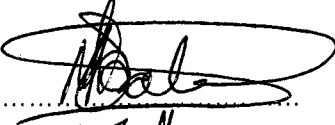

The following documentation will be provided:

- 1. Certificate of cleaning (placed in the document holder).
- 2. Initial Inspection Certificate for each tank.

6.0 **Products**

Approved for products in classes 3, 5.1, 6.1, 8 and 9 as applicable.

**DESIGN**: Compiled by

:   
: 

Reviewed by:



**SALES/CONTRACTS**

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**CUSTOMER APPROVAL**

: \_\_\_\_\_

**BY**

: \_\_\_\_\_

**DATE**

: \_\_\_\_\_

Enquiry to Rev A (04/03/2002)

- 1) Tare mass was 3660kg now 3690 kg - (1.3)
- 2) Shell thickness was 4.5 now 4.6 (1.4)
- 3) Material design temp was 120°C now 130°C (1.5)

From Rev A to WO (13/03/2002)

- 1) WO and serial numbers added

From WO to Rev 1 (06/05/2002)

- 1) Client name added

From Rev 1 to Rev 2 (14/05/2002)

- 1) -"As built" tare mass was 3690 now 3600.