

UNITAS REPAIR MANUAL 2011

DEFINITION

Acceptable and Not Acceptable Condition

The condition guide which follows lists the component parts of a tank container and describes what is acceptable and what is not acceptable according to the standards laid out below.

Not Acceptable Condition

This is damage which affects the safety, structural integrity, cargo carrying capability, the ISO dimensions of the tank container, or where repairs are improper or not in compliance with the applicable regulations.

THESE TYPES OF DAMAGES MUST BE REPAIRED

Acceptable Condition

This is minor damage or fair wear and tear which does not affect any of the above conditions.

NO REPAIR IS REQUIRED

NOTES:

- If any clarification is required as to acceptability or suitability of equipment then UNITAS should be contacted.
- Where any component has to be replaced, the component should be “as built with”. If not available then the component should be of a better quality than what it replaces.
- Some tank containers may be fitted with equipment which does not conform to the make and specification stated in the text. Where there is doubt as to the suitability of this equipment please refer to the owner.

1. CLEANLINESS

1.1. Exterior

NOT Acceptable Condition:

Previous cargo, contamination or odour
Oil, grease deposits
Road dirt reducing legibility of tank markings

1.2. Markings

NOT Acceptable Condition:

Hazard warning labels or cargo labels
Operator logos
Non-standard labels or misleading marks
Remnants of labels
Insecure label holders
Glue residue

NOTE:

- The valve and manlid spillage trays must be clean and free of cargo spillage. Check any areas of overspill for damage to paint and cladding and inspect drain tubes for blockages and check for possible corrosion inside the spill box after removal of product stains.

1.3. Interior

NOT Acceptable Condition:

Previous cargo, contamination or odour
Discolouration or transferable stain which can be removed by the manual application of a plastic abrasive pad and/or solvent.
Corrosion, pitting or gouges
Missing or Improper Cleanliness certificate

Acceptable Condition:

Abrasion or scratches to finer than 120 grit polish equivalent

NOTES:

- When the tank is received into the depot for Off-Hire, the depot must be in possession of a valid Cleanliness certificate stating the proper shipping name and U.N. number of the last cargo carried in the tank. No brand names. See Appendix
- The Cleanliness certificate must have the date of inspection later than the last cargo or any internal work or internal cleaning.
- For man entry it is the responsibility of the depot supervisor to ensure that the tank is safe to enter. This may require an inspection for gas contamination or low oxygen. (Gas Free Certificate)

- Tank containers are to be accepted into the depot for off-hire only when accompanied by a Cleanliness Certificate. Tank containers without valid documentation must be considered unsafe and should not be inspected. A Cleanliness Certificate issued by an independent party is required for all tanks delivered off-hire.

2. FRAME

Frames should be carefully examined for corrosion and paint degradation and where this is showing loss of materials and paintwork estimates should be prepared to clean, de-rust and repaint frames using approved paint systems and paint shade (RAL5002).

2.1. Corner Posts

NOT Acceptable Condition:

Cuts, holes or gouges

Cracks or splits in welds or parent metal

Improper repairs

Dents or distortions of a formed or folded edge or face greater than 15mm (0.6inch) in depth irrespective of length of deformation

Dents greater than 10mm (0.4inch) and less than 15mm (0.6inch) in depth in excess of two per post.

Dents greater than 10mm (0.4inch) extending over a length greater than 300mm (12inch)

Twisted bent or overplated beyond the requirement of ISO

Corrosion affecting the structural strength of the member.

Acceptable Condition:

Dents or distortions not exceeding 15mm (0.6inch) in depth except as qualified above

2.2. Top and Bottom Side and End Rails

NOT Acceptable condition:

Cuts, holes , gouges or splits

Cracks in welds or parent metal

Improper repairs

Dents or distortions greater than 20mm (0.75inch)

Out of straight greater than 25mm (1 inch) per 2m (79inch) length

Top and Bottom end rails bent more than 30mm over the full length of rail measured midway

Side rails bent more than 50mm over the full length of the rail measured midway

Distortion reducing clearance preventing operation of discharge valve

Twisted or bent outward beyond the limits of the ISO corner fittings

Severe corrosion

Loose or missing fasteners

Acceptable Condition:

Dents not exceeding 25mm (1 inch)
Dents in the bottom face of bottom rails which do not affect any formed edge

2.3. Ancillary Bracing

NOT Acceptable Condition:

Cuts, holes, gouges or splits
Cracks in welds or parent metal
Improper repairs
Dents or distortions greater than 20mm (0.75 inch Twisted or bent outward beyond the limits of the ISO corner fittings
Severe corrosion
Mislocation compared to original design

Acceptable Condition:

Dents and distortions less than 25mm (1 inch)

2.4. Tank Bearer Supports

Not Acceptable Condition:

Cuts, holes, gouges or splits
Cracks in welds or parent metal
Improper repairs
Dents or distortion of a formed edge greater than 13mm (0.5 inch)
Dents or distortions of the face greater than 20mm (0.75 inch)
Severe corrosion
Twisted or bent outwards beyond the limits of the ISO corner fittings

Acceptable

Dents not exceeding 13-20mm in depth as qualified above.

NOTE:

- In all cases of damage to the to the tank bearer support, the tank shell must also be inspected for damage. In all cases of corrosion to the tank bearer supports, the section of the bearer attached to the shell below the insulation must be checked for structural integrity. This will require local removal of insulation.

2.5. Stacking Supports

NOT acceptable Condition:

Holed
Cracked
Outside the limits of the ISO corner fittings
Loose

3. WALKWAY AND LADDER ASSEMBLY

3.1. Walkway

NOT ACCEPTABLE CONDITION

Any type of damage affecting safety
Insecure loose fasteners, missing parts
Improper welds and cuts affecting safety
Dents or distortions greater than 25mm (1inch)
Carbon steel bolts/nuts/washers
Twisted or bent upwards beyond the limits of the ISO corner-fitting
Unintentional differences in height between sections affecting safety
Elements of different origin of material (aluminium/galvanised steel) or different shapes

Acceptable Condition

Dents or distortions not exceeding 25mm and not affecting safety
Cuts not affecting safety

3.2. Ladder

Ladder should be clean, secure and safe to use

NOT Acceptable Condition

Insecure
Cuts, holes, or splits, sharp edges or dents affecting safety
Dents and Distortions greater than 30mm full length
Dents and distortions greater than 20mm on ladder rungs
Dents greater than 25mm (1 inch)
Twisted or bent outwards beyond the limits of the ISO corner fittings
Missing fasteners or electrolytic barriers

Acceptable Condition

Distortions smaller than 50mm (2 inch) measured over not less than 1m length and not affecting safety
Cuts not affecting safety

4. PAINTWORK

Not Acceptable Condition:

Paint removed by spillage of cargo

Paint removed by improper handling

Corrosion or paint abrasion equal to, or more severe than Euro Standard Re4

Acceptable Condition:

Very superficial corrosion

Light discoloration

Light scuffs and scratches

NOTE:

- Paint damage and resulting corrosion must be repaired as part of routine maintenance
- Repaired area should be prepared for painting by cleaning to bright metal. An approved primer and paint system must be used with the colour RAL 5002.

5. INSULATION AND CLADDING

5.1. Insulation

Not Acceptable Condition:

Missing insulation material

Saturation by water or cargo

Improper repairs

Deterioration by heat (burnt or baked)

5.2. Cladding

NOT Acceptable Condition:

Cuts, holes, cracks or splits penetrating the cladding thickness and allowing moisture ingress

Gaps in cladding and patch joints allowing moisture ingress

Deterioration by heat (burnt or baked)

Insecure cladding or retaining straps

Surface damage or staining of cladding due to cargo contamination

Heavy corrosion

Improper repairs

Distorted beyond the limits of the ISO corner fittings

Dents, scratches, cracks greater than 15mm

Acceptable Condition:

Distortion not affecting security nor allowing moisture ingress except as stated above

Minor abrasion

Full belly GRP patch on existing aluminium cladding

NOTE:

- In all cases of damage to the cladding the tank shell, heating tubes and electrical components must also be checked.
- The following criteria will also apply when assessing the type and extent of repair required. Use self colour polyester in-fill or overlay rivetted patches [minimum 2mm (0.08inch) G.R.P. for G.R.P. cladding – minimum 0.9mm(18swg) Alum Alloy for Alum alloy cladding in the same colour]. Minimum patch size 150x150 mm (6inchx6inch)
- Extend patched to the retainers strap where the patch is within 30mm of the strap. Care must be taken to ensure that drills or rivets do not damage the shell, steam tubes beneath the cladding.

6. MANWAY ASSEMBLY

6.1. Manlid and Swing Bolt Assemblies

NOT Acceptable Condition:

Leaks

Missing, insecure, seized or non-operational parts

Dents or distortion greater than 6mm (0.25inch) or affecting proper sealing of the manlid.

Cracks

Missing Customs sealing ring.

Pitting, corrosion or contamination.

Improper repairs.

Acceptable Condition:

Non-standard hand nuts which are similar design and similar material e.g. bronze or stainless steel

6.2. Manlid Seal

NOT Acceptable Condition:

Cuts, cracks or distortion affecting sealing

Contamination

Square butt joint

Missing or insecure

Acceptable Condition:

Minor surface degradation which does not contain contamination and does not affect sealing

NOTE:

- The following criteria will apply when assessing the type and extent of repair required : Seals fitted must be to owner's specification. Solid seals may be cleaned.

6.3. Dipstick And Calibration Chart

NOT Acceptable Condition:

Distortion or damage to the dipstick assembly preventing operation
Non stainless steel
Contamination or corrosion
Illegible or insecure

NOTE:

- Dipsticks may or may not be standard. If there is doubt refer to owner.

0

7. SAFETY RELIEF VALVES

7.1. Pressure Only Or Pressure Vacuum Relief Valves

NOT Acceptable Condition:

Contamination or corrosion
Missing parts
Distortion or damaged or worn threads affecting correct operation or security
Leaks or incorrect pressure setting
Missing or defective Customs sealing ring
Improper repairs, seals or gaskets.

Acceptable Condition:

Missing dust plug
PTFE or CF gaskets

7.2. Flame Arrestor Gauze (Where Fitted)

Not acceptable Condition:

Missing if originally fitted
Damage affecting operation
Contamination

NOTE:

- Flame arrestors are not necessary on non-hazardous tanks or on Pressure Only Valves

7.3. Bursting Discs (Where Fitted)

NOT Acceptable Condition:

Leaks or incorrect pressure rating
Contamination or corrosion
Broken disc
Improper parts
Damaged pressure gauge affecting correct operation
Missing tell tale pressure gauge

NOTE:

- Bursting discs may or may not be fitted as standard. Refer to owner if in doubt. Many tanks have bursting-disc flange assemblies fitted in series with the relief valve for the fitting of bursting discs if required.

8. TOP VALVES

8.1. Airline And Airline Valves

NOT Acceptable Condition:

Leaks
Contamination or corrosion
Damage or distortion of valve or screwed fittings affecting correct operation
Non-stainless steel (300 series)
Defective pressure gauge where fitted
Missing outlet cap or seal or retaining wire
Improper repairs seals or gaskets
Missing or non-operational Customs sealing ring

Acceptable Condition:

SWR or PTFE airline cap seals
Caps of non-corrodible material

8.2. Top Outlet

NOT Acceptable Condition:

Leaks
Contamination or corrosion
Damage or corrosion affecting correct operation or sealing
Missing or defective parts
Improper repairs seals or gaskets
Non-stainless steel (300 series)
Non-standard parts (refer to owner)
Missing or defective Customs sealing ring

8.3. Syphon Tube (Where Fitted)

NOT Acceptable Condition:

Contamination or corrosion
Non-stainless steel Damage or distortion affecting correct operation or sealing
Gap between end tub and bottom of tank greater than 25mm

9. PRESSURE VESSEL

NOT Acceptable Condition:

Leaks
Cuts, cracks
Defects to welds or parent materials
Gouges, scratches and badly executed grinding, deeper than 0.1mm (0.004inch)
Excessive grinding or other metal depletion which reduces the shell thickness to less than the minimum
Grinding coarser than 120grit and excessive grinding scars/ uneven pattern.
Corrosion or pitting which results in a shell thickness below the required minimum or creates contamination traps.
Stress corrosion
Improper repairs or non-standard fittings
Sharp indentations, creases or dents causing the elastic limit of the material to be exceeded resulting in permanent deformation
Dents greater than 6mm (0.25inch) to the top third of the tank shell
Dents greater than 10mm (0.4inch) to the bottom two thirds of the tank shell
Shell movement under overpressure / vacuum
Discolouration caused by cargo attack or overheating of the steel (internal/external)

Acceptable Condition:

Gradual distortions measured over the length between the exterior stiffeners of less than 10mm (0.4inch) in bottom two thirds or less than 6mm (0.25inch) in top third of tank shell.
Light abrasions or scratches to 120 grit polish equivalent or finer.
Superficial etching with no resulting contamination traps (where the thickness is not below the minimum)

Pitting and Porosity

Any pitting noted must result in a thorough investigation. An internal shell condition report (see Appendix) should be completed mapping the type of defect, area affected and location. The investigation must ensure that cavity pitting is not present and that pitting is not masking stress corrosion. The investigation will involve localised polishing of the surface followed by visual examination with the aid of a magnifying glass and penetrating dye.

NOTE: Lined tanks

Lined tanks must be opened with extreme caution to avoid damage to the linings. Ladders for man entry must be cushioned against manlid neckring and tank shell. Non destructive test of lining continuity should be performed in accordance with lining manufacturer's specifications. If ensure seek advice from Unitas. Do not carry out spark test without approval from Unitas.

10. BOTTOM VALVES

10.1. Foot Valve

NOT Acceptable Condition:

Leaks
Contamination or corrosion
Damage or corrosion affecting correct operation or sealing
Improper repairs seals or gaskets
Non-stainless steel
Missing or non-operational Customs sealing ring

10.2. Bottom Outlet Valve

NOT Acceptable Condition:

Leaks
Contamination or corrosion
Damage or corrosion affecting correct operation or sealing
Improper repairs, seals or gaskets
Non-stainless steel
Missing or non-operational Customs sealing ring

NOTE:

- Foot valve to tank flange gaskets must be PTFE envelope CF

10.3. Outlet Blank

NOT Acceptable Condition:

Leaks
Contamination or corrosion
Non-stainless steel
Damage or corrosion affecting operation
Missing Customs sealing ring

NOTE:

- Where renewal is necessary, bolts should be stainless steel
- Replacement gaskets should be PTFE envelope CF or solid PTFE

10.4. Screwed Outlet Cap

NOT Acceptable Condition:

Leaks
Contamination or corrosion
Missing Parts
Non-metallic, or a material which is not corrosion resistant
Damaged or improper screw threads
Broken or missing retaining wire or chain
Damage affecting operation

Acceptable condition:

SWR seals

NOTE:

- Replacement caps must be secured by a chain

10.5. Remote Emergency Closure

NOT Acceptable Condition:

Damage rendering remote closure inoperable
Seized
Insecure

11. HEATING

11.1. Steam Tube And Cap

NOT Acceptable Condition:

Leaks
Damaged screw fittings
Missing dust caps
Missing or broken chain or cable
Distortion to the tank shell (due to over pressure)

NOTE:

- In all cases of damage the steam tubes must be pressure tested.
- Defective steam traps should be removed, replacement is not required
- Steam tube dust caps may be made from aluminium casting, stainless steel, gun metal or bronze

11.2. Thermometer

NOT Acceptable Condition:

Not operating correctly
Broken face or dial
Missing or insecure
Improperly fitted

Acceptable condition:

Condensation which does not prevent legibility

11.3. Electric Heating

NOT Acceptable Condition:

Non-operational
Damage or deterioration that may allow moisture ingress to control boxes or elements
Insecure components, cables or terminals
Corroded terminals or components
Improper repairs
Earth leakage less than 1 megohm
Missing parts

NOTE:

- All parts must be well-maintained and fully operational. An electric function test is required at off-hire and on-hire for every electric heated tank.

12. VARIOUS

12.1 . Data Plates And Decals

NOT Acceptable Condition:

Insecure
Missing or illegible plates (CSC, Customs, Data, Owner)
Missing, illegible, obscured or partly missing decals and logos
Twisted or bent beyond the limits of ISO

Acceptable Condition:

Scuffs
Dents except as stated above

NOTE:

- All plates and decals required by applicable regulations must be in place. Refer to owner for details of the data plates and decals to be fitted

12.2. Document Holder

NOT Acceptable Condition:

Missing or defective
Insecure
No drain hole
Water filled

Acceptable condition :

Non-standard type

12.3. Compartments and Compartment Lids

NOT Acceptable Condition:

Non-operational
Twisted or bent beyond the limits of the ISO corner fittings
Splits or tears
Cargo residues, dirt, sundry waste
Blocked drain tubes
Damaged
Insecure doors/lids where fasteners do not properly secure the lid for transport
Missing customs sealing ring and door fasteners
Improper repairs affecting structural integrity
Severe corrosion

12.4. Earthing (Ground) Lug

NOT Acceptable Condition:

Damaged
Missing
Painted

APPENDIX

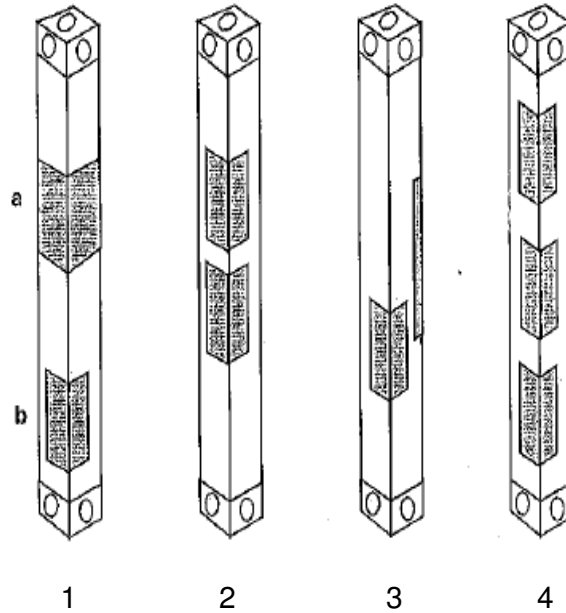
CLEANLINESS CERTIFICATE

ISSUED BY SURVEYOR

| | |
|---|------------------------------|
| SURVEY COMPANY NAME AND ADDRESS: | |
| TANK NO: | |
| PLACE OF ISSUE: | DATE OF ISSUE / TIME : |
| CLEANING COMPANY: | LOCATION: |
| CLEANING PROCESS: | |
| LAST CARGO : | UN NO. : |
| EXTERIOR free from all cargo and contamination | |
| Exterior frame, tank & walkways | YES <input type="checkbox"/> |
| Manlid and valve compartments | YES <input type="checkbox"/> |
| Serial nos. and statutory markings | YES <input type="checkbox"/> |
| Cargo labels removed | YES <input type="checkbox"/> |
| INTERIOR | |
| Entry made into tank by surveyor | YES <input type="checkbox"/> |
| Free from odour | YES <input type="checkbox"/> |
| Free from all cargo and contamination | YES <input type="checkbox"/> |
| Free from corrosion or pitting (If no, report detail below) | YES <input type="checkbox"/> |
| Dry | YES <input type="checkbox"/> |
| VALVES/FITTINGS free from all cargo and contamination | |
| Valves | YES <input type="checkbox"/> |
| Manlid seal | YES <input type="checkbox"/> |
| Dip-pipe/ Syphon pipe | YES <input type="checkbox"/> |
| Gas free Entry Permit issued | YES <input type="checkbox"/> |
| REMARKS | |
| A thorough visual examination has been carried out and the interior of the tank, valves and fittings are free of contamination, previous cargo and odour. The tank is clean and dry. | |
| NAME (PRINT) (being the qualified surveyor) | SIGNED |

Corner Posts Repairs

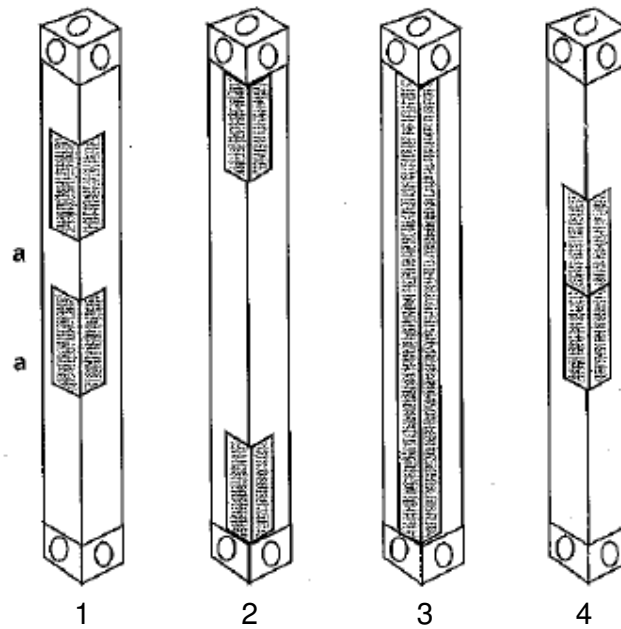
Unacceptable



- 1a. insert through 3 formed edges
- 1b. less than 300mm from casting
2. less than 150mm between inserts
3. overlapping inserts
4. more than two inserts per post

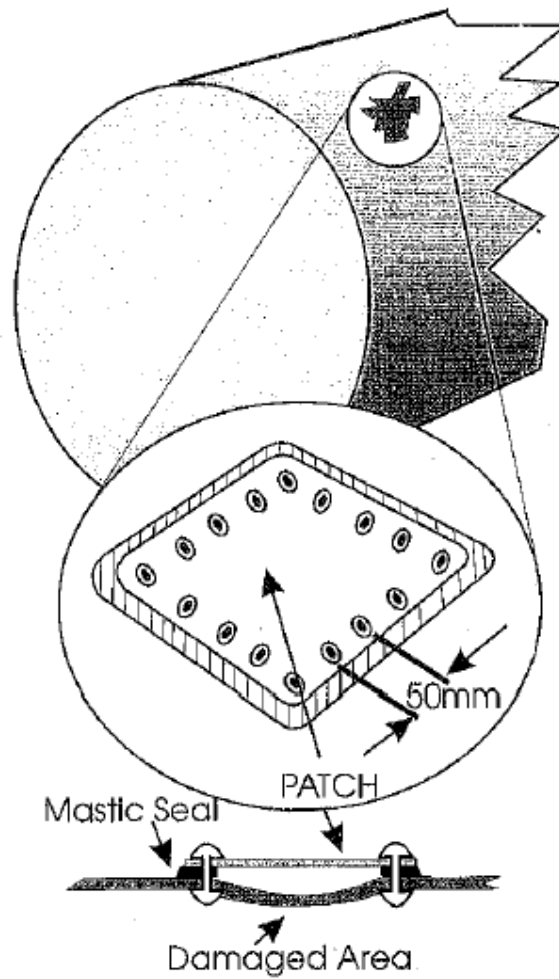
Corner Posts Repairs

Acceptable

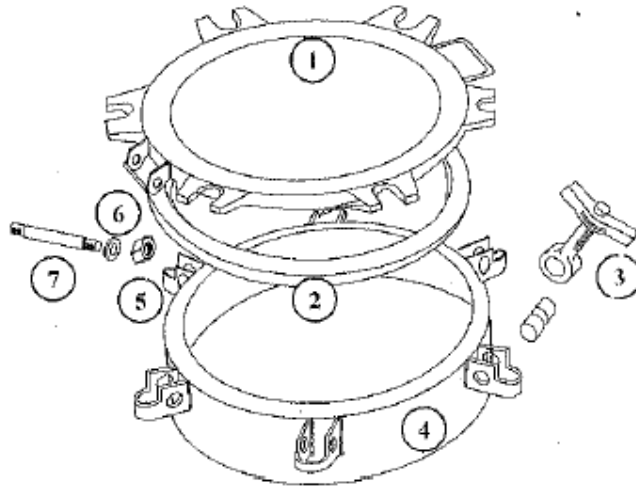


- 1a. Minimum distance between inserts is 150 mm.
- 1b. Minimum size insert is 150 mm.
2. Minimum insert at post ends is 300 mm.
3. A full-length insert is allowed.
4. Two inserts may have a common weld.

Section through cladding patch

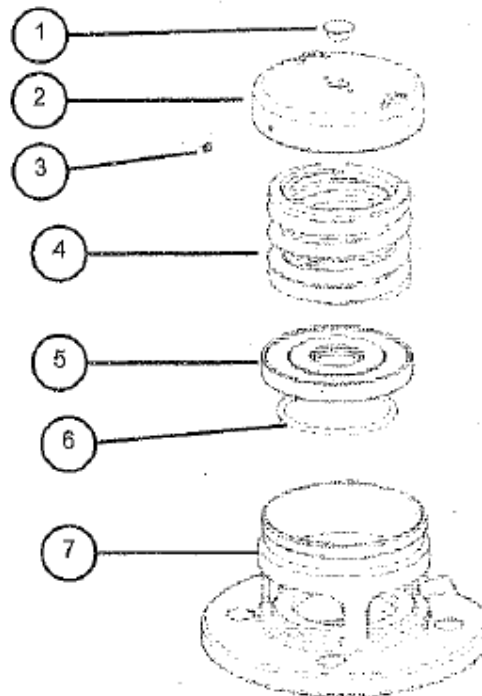


Section through manlid



| ITEM | DESCRIPTION |
|------|--------------------|
| 1 | Cover |
| 2 | Seal ring |
| 3 | Swingbolt assembly |
| 4 | Neckring |
| 5 | Hinge pin |
| 6 | Self locking nut |
| 7 | Washer |
| 8 | Main hinge pin |

Section through relief valve











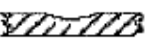


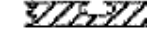
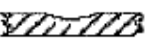


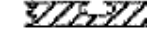




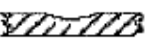


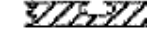
| Item | Description |
|------|----------------------------|
| 1 | Plastic plug |
| 2 | Cap |
| 3 | Setting locking grub screw |
| 4 | Pressure spring pair |
| 5 | Pressure Plate |
| 6 | Vacuum spring pad |
| 7 | Body |

Interior shell condition mapping chart

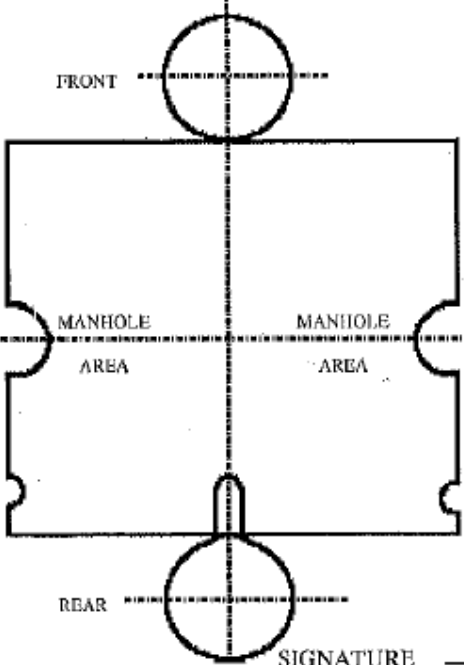
| | |
|----------------|----------------|
| TANK SERIAL NO | TANK UNIT TYPE |
| DEPOT LOCATION | LAST CARGO |
| DATE | UN NUMBER |
| REPORT BY | TANK MATERIAL |

SHELL CONDITION

PITTING SHAPE (INDICATE)

| | | | | | | | | | | | | | | | | | |
|--|--|--------|---|--------------------|---|------|---|---------|--|-----------------|--|--------------|--|------------|--|------------|--|
| <table border="0"> <tr> <td style="text-align: center;"></td> <td>STAINS</td> </tr> <tr> <td style="text-align: center;"></td> <td>SCRATCHES / GOUGES</td> </tr> <tr> <td style="text-align: center;"></td> <td>RUST</td> </tr> <tr> <td style="text-align: center;"></td> <td>PITTING</td> </tr> </table> |  | STAINS |  | SCRATCHES / GOUGES |  | RUST |  | PITTING | <table border="0"> <tr> <td style="text-align: center;">FLAT BOTTOM (A)</td> <td style="text-align: center;"></td> </tr> <tr> <td style="text-align: center;">PIN HOLE (B)</td> <td style="text-align: center;"></td> </tr> <tr> <td style="text-align: center;">CRATER (C)</td> <td style="text-align: center;"></td> </tr> <tr> <td style="text-align: center;">CAVITY (D)</td> <td style="text-align: center;"></td> </tr> </table> | FLAT BOTTOM (A) |  | PIN HOLE (B) |  | CRATER (C) |  | CAVITY (D) |  |
|  | STAINS | | | | | | | | | | | | | | | | |
|  | SCRATCHES / GOUGES | | | | | | | | | | | | | | | | |
|  | RUST | | | | | | | | | | | | | | | | |
|  | PITTING | | | | | | | | | | | | | | | | |
| FLAT BOTTOM (A) |  | | | | | | | | | | | | | | | | |
| PIN HOLE (B) |  | | | | | | | | | | | | | | | | |
| CRATER (C) |  | | | | | | | | | | | | | | | | |
| CAVITY (D) |  | | | | | | | | | | | | | | | | |

REMARKS

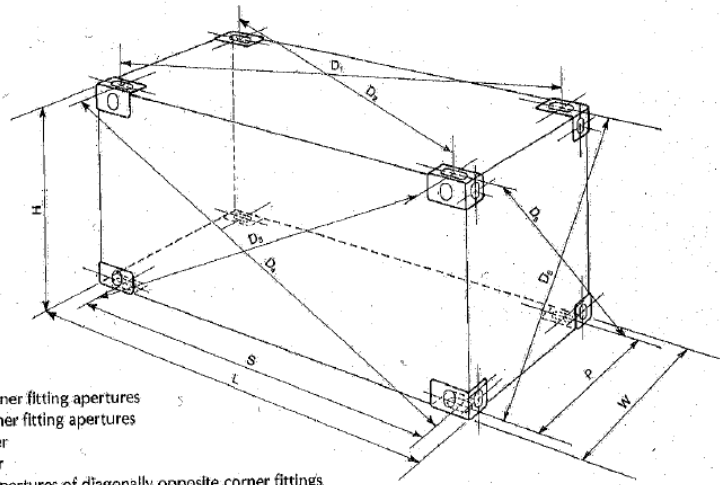


FRONT

REAR

SIGNATURE _____

ISO Dimensions and tolerances



- S = Length between centers in corner fitting apertures
- P = Width between centers in corner fitting apertures
- L = External length of the container
- W = External width of the container
- D = Distance between centers of apertures of diagonally opposite corner fittings
- K₁ = Difference between D₁ and D₂ or D₃ and D₄
- K₂ = Difference between D₅ and D₆
- H = Overall height

EXTERNAL DIMENSIONS AND TOLERANCES IN MILLIMETERS AND IN FEET AND INCHES

Height - 8 ft. high: 2 438 $\pm \frac{0}{5}$ mm (8 ft 0 in. $\pm \frac{0}{3/16}$ in.) Height - 8 1/2 ft. high: 2 591 $\pm \frac{0}{5}$ mm (8 ft 6 in. $\pm \frac{0}{3/16}$ in.)

Height (external) - 9 1/2 ft. high: 2 896 $\pm \frac{0}{5}$ mm (9 ft 6 in. $\pm \frac{0}{3/16}$ in.) Width - All containers: 2 438 $\pm \frac{0}{5}$ mm (8 ft 0 in. $\pm \frac{0}{3/16}$ in.)

| Freight container designation | Length (external) | | | S | | | P | | | K ₁ max. | | K ₂ max. | |
|-------------------------------|---------------------------|----|----------------------------|--------|----|--------|-------|----|---------|---------------------|-----|---------------------|-----|
| | mm | ft | in | mm | ft | in | mm | ft | in | mm | in | mm | in |
| 40' | 12 192 $\pm \frac{0}{10}$ | 40 | 0 $\pm \frac{0}{3/8}$ | 11 985 | 39 | 3-7/8 | 2 259 | 7 | 4-31/32 | 19 | 3/4 | 10 | 3/8 |
| 30' | 9 125 $\pm \frac{0}{10}$ | 29 | 11-1/4 $\pm \frac{0}{3/8}$ | 8 918 | 29 | 3-1/8 | 2 259 | 7 | 4-31/32 | 16 | 5/8 | 10 | 3/8 |
| 20' | 6 058 $\pm \frac{0}{6}$ | 19 | 10-1/2 $\pm \frac{0}{1/4}$ | 5 853 | 19 | 2-7/16 | 2 259 | 7 | 4-31/32 | 13 | 1/2 | 10 | 3/8 |

MINIMUM INTERNAL DIMENSIONS

| Freight container designation | Minimum height | Minimum width | | Minimum length | | |
|-------------------------------|---|---------------|--------|----------------|-------|----|
| | | mm | in | mm | ft | in |
| 20' | Nominal container external height minus 241 mm (9-1/2 in) | 2,330 | 91-3/4 | 5,867 | 19 | 3 |
| 8,931 | | | | 29 | 3-5/8 | |
| 11,998 | | | | 39 | 4-3/8 | |