

# Operational Excellence

## Instructions for the safe use of: Aviation Fuel Tanks

The information in this leaflet should be passed to the user of the equipment.

This document is issued in accordance with the requirements of DNV 2.7-1/EN 12079 & IMDG. It outlines the care and safe use of AVIATION FUEL TANKS and is based on the Oil & Gas UK "Best Practice for the Safe Packing & Handling of Cargo to & from Offshore Locations". It should be read in conjunction with the instructions for the safe use of Wire Rope Slings.

This information is of a general nature only covering the main points for the safe use of AVIATION FUEL TANKS. It may be necessary to supplement this information for specific operations.

### Always

Ensure operators wear appropriate personal protective equipment (PPE) e.g. gloves, hard hat, safety glasses, and safety footwear.

Ensure operators are trained and competent.

Ensure dangerous goods are shipped in compliance with the requirements of the IMDG Code.

### Never

Use equipment without carrying out a pre-use inspection.

Use equipment that has not been periodically inspected and certified.

Replace lifting sets without the approval of a competent person.

Use equipment out with its intended purpose.

### Pre-use Inspection

Ensure earth points are in place and fit for purpose, should be clean and corrosion free.

Ensure gratings are secured where applicable.

Ensure the data plate is legible and demonstrates sufficient certification.

Ensure the safety, identification, and information markings are clear and legible.

Ensure the lifting set is correctly fitted with shackles and split pins fully engaged.

Ensure the lifting set is free of obvious signs of damage, e.g. abrasion, corrosion, wear, chemical attack, and mechanical damage.

Check capacity of tank including ullage is adequate.

### Loading & Operation

Prior to operating the vessel ensure the frame is earthed using either earthing point, typically located diagonally at opposite ends of the frame where applicable.

Ensure the contents do not exceed the vessel capacity excluding ullage. The ullage allows for thermal expansion.

The pressure relief valve is set to relieve the internal pressure of approximately 5/6th of the test pressure. When operating the vessel ensure the working pressure does not exceed what is stated on the tank plate/unit decals.

To obtain a level reading either visually inspect the level gauge, located at the front of the vessel or access the dipstick via the front ladder ensuring that the vessel has been vented before unscrewing the cap.

To sample the tank, open the internal valve by means of the remote operating lever on the sample valve. Remove the dust cap from the end of the assembly. Place a suitable container under the 3/4" ball valve and remove a sample. This is achieved by slowly opening the handle to attain the required flow. After the sampling procedure is complete close all valves and fit dust cap.

To fill the tank, first open the vent valve on the vessel. In the case of empty tanks ensure all bottom valves are closed. Remove the cap from the self-sealing tank unit. Connect hose fitted with 2.5" self-sealing hose unit to fill/discharge line. Open the internal valve on the fill/discharge line by using the remote operating lever. Fill tank to required level. After filling close the valve on the filling/discharge line, disconnect the self-sealing hose unit and replace cap.

Resample tank using the above procedure.

Once the vessel has been emptied of its contents the vessel and tank fittings must be cleaned.

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### Movement & Transport

Ensure all signs and placards are in place and in compliance with the IMDG Code.

Ensure roof, forklift pockets, frame, etc., is free of potential dropped objects.

Ensure the total consignment weight does not exceed the maximum gross weight of the unit.

Ensure all lifting is performed with carried out through the forklift pockets or dedicated lifting set.

Lifting must be carried out by competent persons in accordance with an appropriate lifting plan.

### Maintenance & Inspection

Moving parts such as valves, relief devices, hinges, shackles, etc., must be regularly checked to ensure the components are free from any damage or corrosion. Ensure moving parts are free moving. Swing bolts should be lubricated and hand tight only.

Paintwork damage must be regularly treated to combat corrosion.

Lifting sets shall be subjected to as a minimum:

- Thorough examination at intervals not exceeding 12 months.
- Non-destructive examination, and visual examination of components and joining links at intervals not exceeding 48 months.
- Non-destructive examination, and visual examination of chain sling legs at intervals not exceeding 48 months.

Containers shall be subjected to as a minimum:

- Visual examination at intervals not exceeding 12 months.
- Non-destructive examination, and visual examination at intervals not exceeding 48 months.
- Proof load test, non-destructive examination, and visual examination after substantial repair or alteration.

Tanks shall be subjected to as a minimum:

- 2.5 year visual examination and pneumatic test.
- 5 year visual examination and hydrostatic test.

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### Aviation Fuel Tank

Note. Design may not be wholly representative of the actual Aviation Fuel Tank.

