

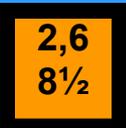
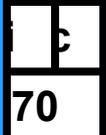
Portable Tanks



 INHALATION HAZARD  IM-101
AAR-600
ADR/ RID

TCIU 749213 **4** TC IMPACT APPROVED
US 2276

Acrolein Stabilized

Bwana Bob Tank, Inc.

Basic Types of Portable Tanks

Frame Tank

Barrel of the tank is completely enclosed in a rectangular frame & the **frame** bears the load.



Beam Tank

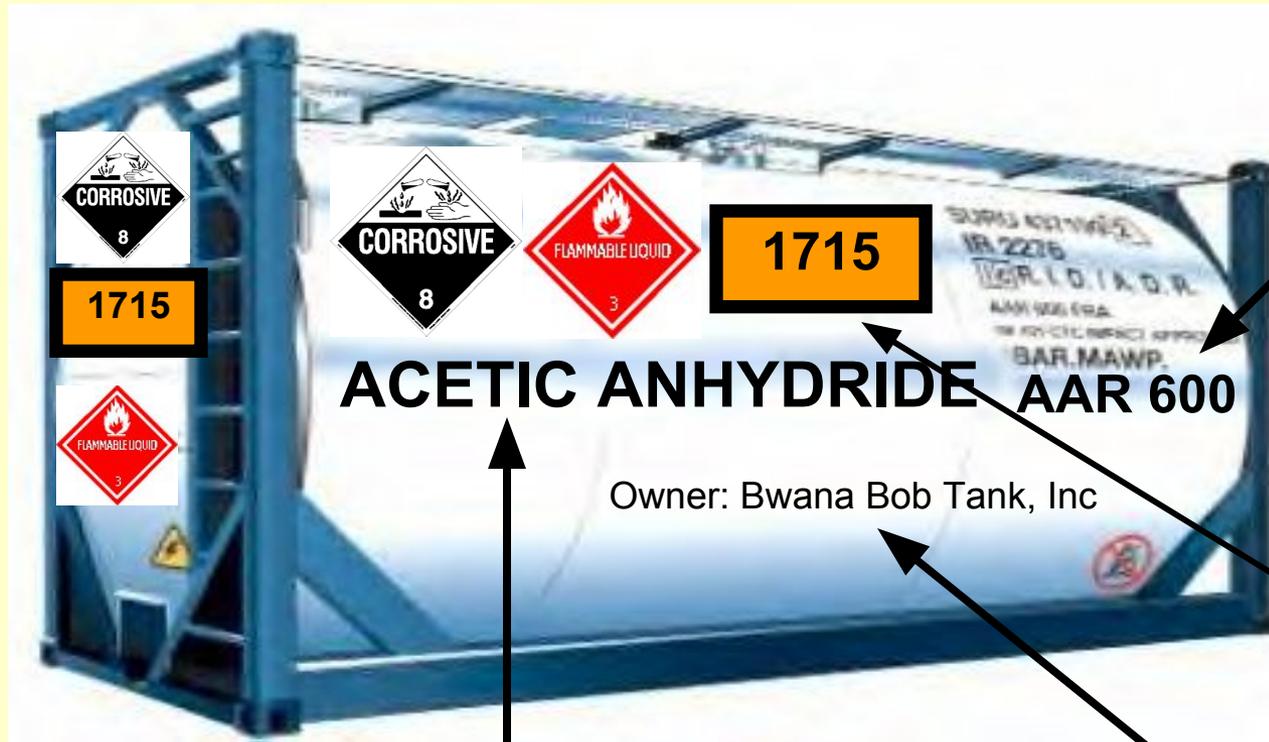
Barrel of the tank is framed on both ends & the **barrel** supports part of the load.



Classifications of Portable Tanks

Type	Description	Compatible
IM 101	MAWP □ 1.75 Bar (25.4 psig) & < 6.8 Bar (100 psig) Designed in accordance with ASME Codes.	IMO 1
IMO Type 1	MAWP □ 1.75 Bar (25.4 psig) or above. See IMDG Code 13.1.2.13	IM 101 DOT 51
IM 102	MAWP □ 1Bar (14.5 psig) but < 1.75 Bar (25.4 psig) Designed in accordance with ASME Codes.	IMO 2
IMO Type 2	MAWP □ 1 Bar (14.5 psig) < 1.75 Bar (25.4 psig) See IMDG Code 13.1.2.14	IM 102
DOT 51	Design pressure between 6.9 Bar (100 psig) & 34.48 Bar (500 psig), ASME Steel construction, Water capy >1,000 lbs	IMO 1 IMO 5
IMO Type 5	Design pressure between 6.9 Bar (100 psig) & 34.48 Bar (500 psig), See IMDG Code 13.102.14	DOT 51

Dot Marking of Portable Tanks



AAR-600
specification
not required

ID Number on
both sides &
both ends, if
1000 gal capy
or more

Name of
Owner *or*
Lessee

Proper Shipping Name displayed on
2 opposing sides: At least 2" in
height if 1000 gal. capacity *or more* &
1" in height if < 1000 gals.
CFR 172.302(b) for size of markings

International Markings

TCIU 749213

4

The boxed number is a “**check digit**” used to validate the owner code & serial number, based on an ISO formula.

2,6

8¹/₂

Top number is the height in **Meters** & fraction of a meter.
The bottom number is height in **Feet** & fraction of a foot.

Letters represent the **Country Code of Registration**

Next 2 digits represent the **Size Code**– See ISO 6346-1984 (E)

Last 2 digits represent the **Type of Container Code**–
See *ISO 6346-1995(E)* :

73 or T3	for Dangerous Liquids, Test Pressure	1.5 BAR
74 or T4	for Dangerous Liquids, Test Pressure	2.65 BAR
75 or T5	for Dangerous Liquids, Test Pressure	4 BAR
76 or T6	for Dangerous Liquids, Test Pressure	6 BAR
77 or T7	for Dangerous Gases, Test Pressure	10.5 BAR
78 or T8	for Dangerous Gases, Test Pressure	22 BAR

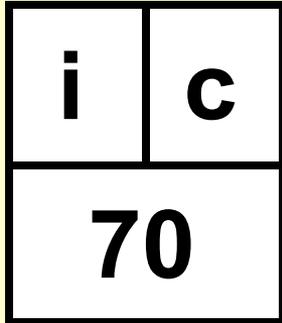
US 2276

International Markings #2

ADR / RID

ADR – **European** design approval by **ROAD**

RID – **European** design approval by **RAIL**



Railway Approval Decal in accordance with UIC-Codex. The code for the country of registration is displayed in the bottom half of the marking.

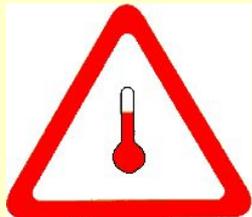
TC IMPACT APPROVED

Transport **Canada** approval for **RAIL** impact prototype testing.

M.A.W.P. 43.5 psi (3 BAR)

Max. Allowable Working Pressure. NOTE:

1 BAR = 14.504 psi



150°C

Elevated Temperature Material

Use of IM Portable Tanks

Hazmat may **NOT** be loaded in a Portable Tank with bottom outlets unless authorized by an applicable T-code:

T1,3 & 6 – Must be equipped with at least 2 serially fitted & mutually independent shut-off devices & must include:

a) An external stop-valve fitted as close to the shell as reasonably practicable, and

b) A liquid tight closure at the end of the discharge pipe, which may be a bolted blank flange or a screw cap.

T2,4,7,11,12,15,16,17,18,23 –Must be equipped with at least 3 serially fitted & mutually independent shut-off devices & must include:

a) A self-closing internal stop-valve.

b) An external stop-valve fitted close to the shell.

c) A liquid tight closure at the end of the discharge pipe.

d) For liquids that are flammable, pyrophoric, oxidizing or toxic, the remote means of closure must be capable of thermal activation.

Periodic Testing of Portable Tanks

IM Portable Tanks - CFR 180.605

Hydrostatic Tank Test at not more than 5 year intervals

➤ Tested to a pressure not less than **150% of MAWP**

➤ Witnessed by an approval agency

➤ **Mo & Yr** of test **marked** on or near the Data Plate

➤ Visual Inspection at not more than 2 ½ year intervals

➤ **Mo & Yr** of the inspection **marked** on or near the Data Plate

➤ If the 5 yr test is conducted, the marked date is acknowledgement that the visual inspection was performed on that date. (i.e.: duplicate marking of a 2 ½ year inspection date & 5 year test date are not required)

➤ Spring Loaded pressure relief valves must be removed & tested at no more than 2 ½ year intervals

Periodic Testing of DOT 51 Tanks

DOT 51 Tanks - CFR 180.605

- Hydrostatic Tank Test at not more than **5 year** intervals
 - Tested to a pressure not less than **150% of MAWP**
 - A complete **visual** inspection of the tank, valves & closures
 - **Mo & Yr** of test **marked** on or near the Data Plate
 - Any tank that has not been used to transport hazmat for a period of **1 year or more** may **NOT** be returned to hazmat service until it has been **TESTED**.
 - Any damaged or deteriorated tanks must be **RETESTED** before returning to service

Inspecting Portable Tanks Prior to Filling

Visual Inspection of:

- ✓ The shell, piping, valves & other appurtenances for corroded areas, dents, defects in welds & other defects such as missing, damaged or leaking gaskets.
- ✓ All flanged connections or blank flanges for missing or loose nuts & bolts.
- ✓ All emergency devices for corrosion, distortion, or any damage or defect that could prevent their normal operation.
- ✓ All required markings on the tank for legibility
- ✓ Manlid covers for securement.

- *CFR 180.605*