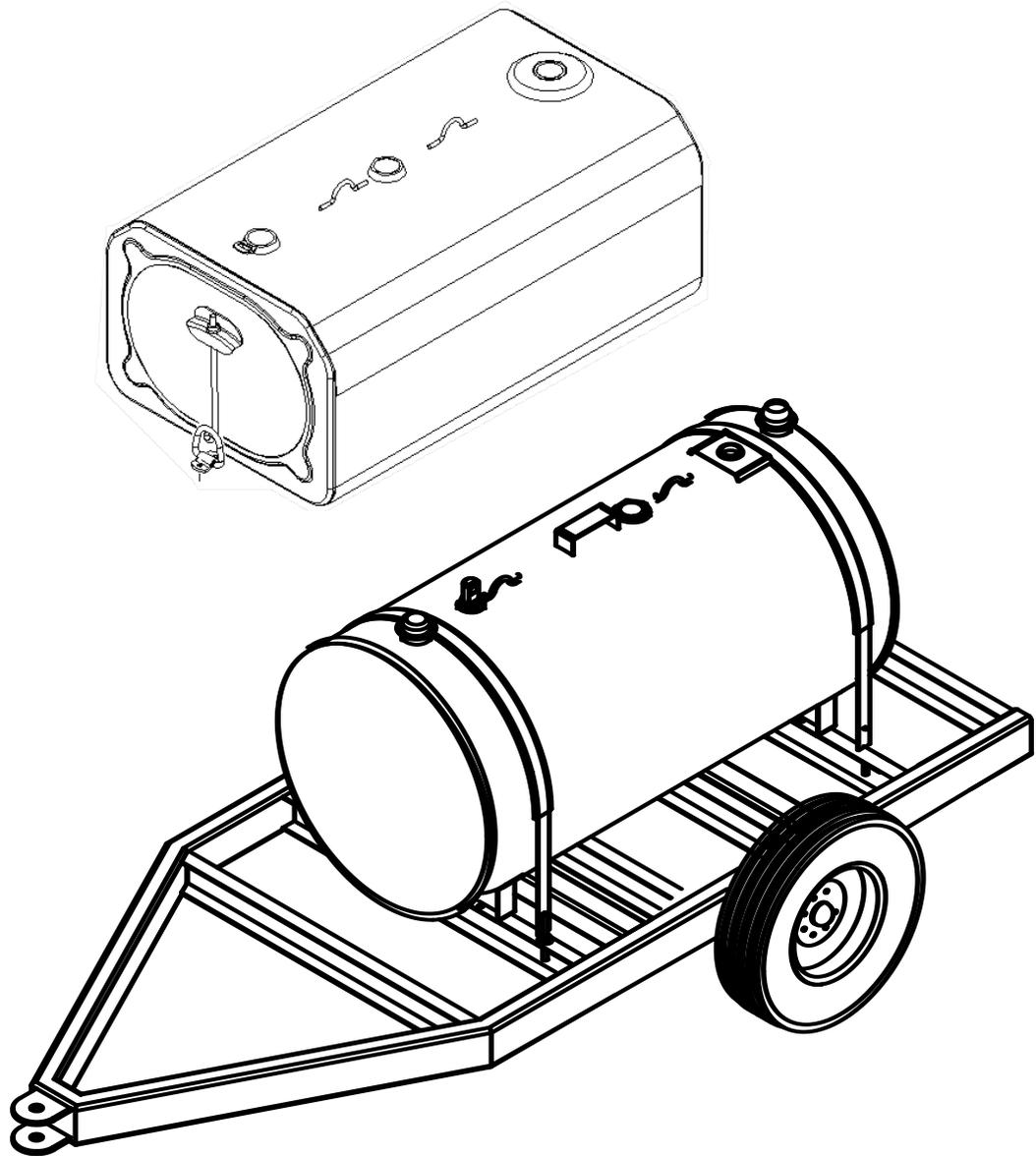


ROAD-VAULT

Mobile Petroleum Tank

OWNERS AND USERS MANUAL



READ THESE INSTRUCTIONS CAREFULLY AND COMPLETELY BEFORE INSTALLATION AND USE OF TANK

TABLE OF CONTENTS

LIST OF CAUTION / WARNING DECALS AND NAMEPLATE.....	3
WARRANTY / SPECIFICATIONS	4
LIMITED WARRANTY.....	4
1. Duration of Warranty.....	4
2. Limitation of Remedies Replacement.....	4
3. Procedure for Obtaining Service.....	4
4. Limitations as to Scope of Warranty.....	4
5. Limitations as to Manufacturer.	4
6. Limitation of Implied Warranties and Other Remedies.	4
7. Exclusive Warranty.....	4
DISCLAIMERS.....	5
External Corrosion	5
Internal Corrosion.....	5
Loss of Vacuum	5
Underground Tanks	5
General Disclaimers.....	5
DESIGN & USE.....	6
General.....	6
Non-Code Portable Service Tank	6
Road-Vault Service Tank (IBC)	6
SHORTAGES, DAMAGED PARTS AND OPTIONAL EQUIPMENT	6
TANK INSTALLATION	7
Anchoring installation.....	7
FIGURE 1: TANK INSTALLATION DIAGRAMS	8
PERIODIC LEAK TEST AND INSPECTION FOR ROAD VAULT TANK (IBC)	9
Procedure for Leak Test	9
Criteria for Passing Leak Test and Inspection	9
Marking	9
Leak Test and Inspection Records.....	9
APPENDIX A – Fill and Venting Equipment Specifications	10
Fill and Vent Cap	10
Emergency Vents (Fusible Plug)	10

LIST OF CAUTION / WARNING DECALS AND NAMEPLATE

MOBILE IBC CAN/CGSB-43.146-2016
GRV DE TRANSPORT CAN/CGSB-43.146-2016

(un) 31A/Y/ [] [] CAP CONT [] L
TARE MASS [] Kg
MONTH MOIS [] YEAR ANNEE []

CAN/WESTEEL 4-[] /

0/[] MAT'L MAT MS MIN. THK. ÉPAISS MIN [] mm
MAX FILL/DISC. PRESS PRESS MAX REMPL/VID 65 kPa MIN. THK. OUTER ÉPAISS MIN. CORPS [] mm

DO NOT LIFT WHEN LOADED WITH PRODUCT NE PAS SOULEVER LE CONTENANT PLEIN

NAMEPLATE INFO



AT EMERGENCY VENT (P/N 530162)

RETEST/INSPECTION

MONTH	YEAR	REGISTRATION No. OF RETESTER

WESTEEL 272043

INSPECTION LABEL



U.N. PRODUCT IDENTIFICATION NUMBER (SEE NOTE)

TRANSPORT CANADA PRODUCT IDENTIFICATION DECAL (*NOT SUPPLIED BY WESTEEL)

198870
Decal Part No.

WESTEEL

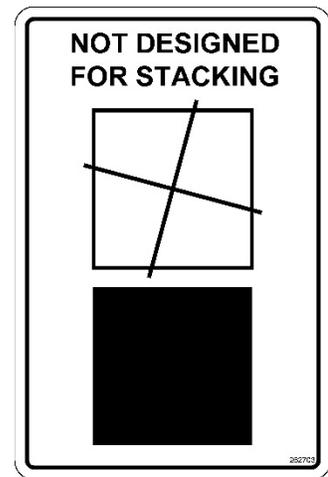
SERIAL No. XX XX XXXXX

MADE IN CANADA

SERIAL NUMBER DECAL (P/N 198870)



ROAD-VAULT LOGO DECAL (P/N 262841)[ROAD-VAULT TANKS ONLY]



"NOT DESIGNED FOR STACKING" WARNING DECAL

WARRANTY / SPECIFICATIONS

LIMITED WARRANTY

Westeel warrants products that it has manufactured and/or that are branded with its name or that of Northern Steel Industries (the "goods") subject to the following terms and limitations, (the "warranty").

Note: The warranty does not apply to products manufactured by Westeel under license (the "licensed products"). The licensed products are solely subject to warranty terms as they may be set from time to time by the licensing body. The licensed products include but are not necessarily limited to: FLAME SHIELD, Fireguard, F921, stiP3, AquaSweep and Glasteel. For information on warranty terms applicable to the licensed products, or to determine whether a product is a licensed product, please consult the Westeel website at <http://www.westeel.com/> and/or contact Westeel by phone at 1-800-665-2099.

1. **Duration of Warranty.** The duration of the warranty is limited as follows.
 - i. External Corrosion – 2 years.
 - ii. Internal Corrosion – 2 years.
 - iii. Structural Defect – 5 years, except in the case of Mobile Tanks in which case it is 1 year.
 - iv. Tank Accessories – 1 year;
 - v. Loss of Vacuum – 2 years, except in the case of Underground Tanks in which case it is 30 days from date of delivery to the purchaser.The duration of the warranty will run from the date of purchase from a dealer or distributor authorized by Westeel, unless otherwise stated (the "warranty period").
2. **Limitation of Remedies Replacement.** Within the warranty period, Westeel will replace the goods and/or original manufactured components thereof which are found, to Westeel's satisfaction, to be defective. Westeel is not responsible for direct, indirect, special, consequential, or any other damages of any kind, including personal injury to any individual, howsoever caused, including caused by transportation of the goods for repair or replacement.
3. **Procedure for Obtaining Service.** In the event of a warranty claim, the purchaser must complete any and all information required by Westeel in order to properly assess or investigate the claim. Westeel will not be responsible for the removal of any of the goods found to be defective, or transportation charges to and from Westeel's authorized dealer or distributor, or for installation of any replacement goods and/or parts furnished under the warranty.
4. **Limitations as to Scope of Warranty.** The warranty does not extend to defects or damage caused, in whole or in part, by:
 - i. use of a kind and/or to a degree not reasonably expected to be made of the goods;
 - ii. improper storage of the goods both prior to and after purchase;
 - iii. damage caused by, or in the course of, installation or assembly;
 - iv. any use of the goods which is not an intended use as specified in Westeel's published product literature, or otherwise specified by Westeel in writing;
 - v. any equipment attached to or used in conjunction with the goods;
 - vi. any field modifications or substitutions to original bin components;
 - vii. inadequate ventilation or any other circumstance not in keeping with proper maintenance and/or use of the goods;
 - viii. acts of God, accident, neglect or abuse of the goods by the purchaser and/or any other individual or entity; or
 - ix. Any use or installation inconsistent with Westeel's Standard Disclaimers.
5. **Limitations as to Manufacturer.** The warranty does not cover products sold by Westeel that are not manufactured and/or that are not branded with its name or that of Northern Steel Industries. In those circumstances, the purchaser is referred to the manufacturer of those products.
6. **Limitation of Implied Warranties and Other Remedies.** To the extent allowed by law, neither Westeel nor its dealers, nor any company affiliated with Westeel makes any warranties, representations, or promises as to the quality, performance, or freedom from defect of any Product covered by this Warranty.

WESTEEL HEREBY DISCLAIMS, TO THE EXTENT APPLICABLE, ANY AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. A PURCHASER'S ONLY REMEDIES IN CONNECTION WITH THIS WARRANTY ARE THOSE SET FORTH IN THIS WARRANTY. IN NO EVENT WILL WESTEEL, ITS DEALERS, OR ANY COMPANY AFFILIATED WITH WESTEEL BE LIABLE FOR INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES.

Some jurisdictions do not allow waivers of certain warranties, so the above waivers may not apply to you. In that event, any implied warranties are limited in duration to ninety (90) days from delivery of the products. You may also have other rights which vary from jurisdiction to jurisdiction.
7. **Exclusive Warranty.** This warranty is the only warranty provided by Westeel and all other warranties and/or commitments whether express or implied and no matter by whom made, statutory or otherwise, are subsumed and replaced by it and are of no legal effect. If any provision of the warranty is held by a court of competent jurisdiction to be void or unenforceable, in whole or in part, such provision shall be deemed severable and will not affect or impair the legal validity of any other provision of the warranty.

Note: An extended warranty may be available for purchase in respect of certain of the goods (the "Guardian Warranty and Environmental Protection Program"). The terms of the Guardian Warranty and Environmental Protection Program apply only if and when it is purchased. Please contact a Westeel representative should you wish further information on terms and pricing of the Guardian Warranty and Environmental Protection Program.

DISCLAIMERS

External Corrosion

The warranty does not apply if:

- I. Foreign materials have contacted painted surfaces or stainless steel surfaces causing damage and/or allowing for corrosion and/or rust.
- II. The goods have been primed and/or painted by someone other than Westeel.
- III. Threaded material has been scraped or scratched in a manner causing damage and/or allowing for corrosion and/or rust (e.g. pipe caps or pumps).

Internal Corrosion

The warranty does not apply if:

- I. The goods are not used solely for the containment of petroleum products, unless otherwise stated in writing and signed off by an authorized representative of Westeel.
- II. All maintenance procedures are not strictly followed. This includes but is not limited to a regular inspection for internal moisture and debris, dents, punctures, leaks and loose or damaged fittings a minimum of once every twelve (12) months.

Loss of Vacuum

The warranty does not apply if:

- I. The purchaser fails to contact Westeel immediately for instructions when vacuum appears to have been lost.
- II. The vacuum has not been checked immediately after transporting to installation site.
- III. The Installation Checklist is not strictly followed and completed, signed and returned to Westeel within fourteen (14) calendar days of the date of delivery.

Underground Tanks

The warranty does not apply if:

- I. The Installation Checklist is not strictly followed and completed, signed and returned to Westeel within thirty (30) calendar days of the date of installation or ninety (90) calendar days of the date of shipment to the purchaser, whichever occurs first.

General Disclaimers

The following disclaimers apply to the goods in all circumstances:

- I. The goods must be installed by a certified installer recognized by local authorities, where applicable, and strictly in accordance with Westeel's Installation Instructions as well as all applicable installation and building codes and accepted trade practices. Without limiting the generality of the foregoing, proper foundation assembly, installation and use solely for the purposes intended as specified in Westeel's published product literature is essential. As well, tank venting for both normal and emergency situations must be installed properly and kept unobstructed at all times.
- II. The goods must be handled at all times (including but not limited to shipping, loading and unloading, positioning) only when empty and must be secured at all times in a manner as specified in the Owners' Manual. Any damage caused during handling is not covered by the warranty.
- III. Any damage caused by foreign debris entering into the tanks, including but not limited to moisture, is not covered by the warranty. It is extremely important for the owner/user to check for foreign debris inside the tank at the time of delivery as well as before commencing use of the goods and regularly during use of the goods. Moisture can cause irreparable damage to the goods including but not limited to a leak due to microbial corrosion. For further information on moisture monitoring and removal you may contact:
 - Steel Tank Institute (STI)
 - Westeel website
 - Petroleum Equipment Institute
- IV. Accessories and parts on the goods may not have been manufactured by Westeel ("third party manufactured goods"). Third party manufactured goods are not covered by the warranty. Warranty terms applicable to third party manufactured goods are as per the terms published by the applicable manufacturer. For further information on accessing the website of the applicable manufacturer please contact a Westeel representative.
- V. Modifications made to the goods that have not been approved in writing by an authorized representative of Westeel will result in the warranty being null and void. This will be the case for any and all damages howsoever caused to the goods at any time after the modification has been made.
- VI. The goods must be maintained and used at all times in a manner consistent with all Westeel procedures contained in the Owners' Manual as well as prudent, accepted practice.

DESIGN & USE

General

This tank was designed to meet the following general requirements:

1. To store flammable and combustible liquids of relative density not greater than 1.0. These stored products must be compatible with steel.
2. To withstand normal operating conditions of 7 PSI (50 kPa) and emergency venting conditions of 10 PSI (70 kPa).
3. To withstand an external pressure of 0.334 PSI (2.3 kPa) under normal operating conditions.
4. To be lifted / moved via attached lift lugs **ONLY WHILE COMPLETELY EMPTY**. Lugs designed for lifting of tanks containing product are available upon request. See optional equipment for RV290-830 models shown in Figure 1.

Non-Code Portable Service Tank

These tanks are designed to be used for the transportation of flammable and combustible liquids such as Gasoline, Diesel Fuel, or similar products. They are intended to be used as allowed by various TDG exemptions such as 1.21, 1.22, 1.33. It is the responsibility of the tank owner / user to consult the authority having jurisdiction to ensure compliance.

Road-Vault Service Tank (Mobile IBC)

These tanks are designed in accordance with United Nations/Transport Canada Regulations and the Canadian General Standards Board code CAN/CGSB-43.146 for use as mobile intermediate bulk containers, or IBC's, (Type 31A or 31AW) for the transportation of dangerous goods by road. The following points must be followed during use:

1. Mobile IBC \leq 3000 L are intended for the following products: 1202,1203,1223,1230,1268,1863
2. Mobile IBC $>$ 3000 L and \leq 5000 L are restricted to the following products: 1202,1223,1268,1863
3. These tanks are not intended to be stacked in any manner.

SHORTAGES, DAMAGED PARTS AND OPTIONAL EQUIPMENT

1. Report damaged parts or shortages immediately, to the delivering carrier followed by a confirming letter requesting inspection by the carrier, if required.
2. Order necessary replacement parts immediately to ensure that missing parts will not hold up installation. All parts will be charged for and credit will be issued by the party at fault. ***No credit will be issued if the freight bills are signed as received in good condition.***

Consistent with Westeel's policy of continued research and development, we reserve the right to modify or change information in this publication without notice.

TANK INSTALLATION

 **IMPORTANT:** The tank / IBC owner and user(s) are fully responsible for environmental contamination, clean up and/or unsafe or explosion hazards as a result of improper installation, use, or maintenance of this tank.

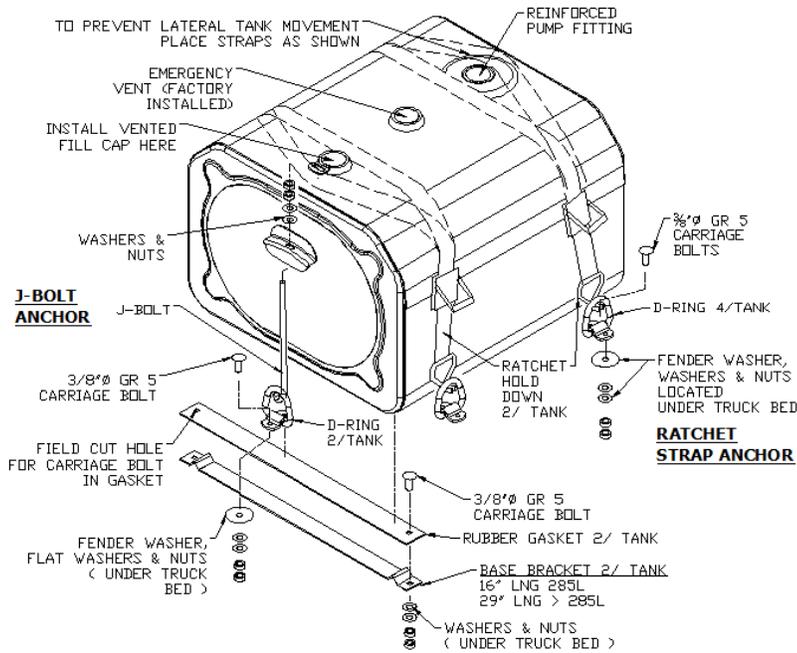
It is the requirement of the tank owner / installer / user(s) to:

- a. Ensure that all federal, provincial, and local codes and regulations are met prior to tank installation. Examples include, but are not limited to, Fire and Environmental Codes. Consult the authority having jurisdiction to be certain.
- b. Ensure that the truck or trailer being used is capable of carrying the weight of the tank plus the weight of the fuel, calculated on the maximum listed capacity of the tank.
- c. Ensure that the mounting location on the truck or trailer platform is capable of bearing the total weight transfer of the tank plus the maximum weight of the loaded fuel, and the load transfer of the fuel to the hold down straps as the load shifts during transport.
- d. Unless tank is equipped with Wet Lugs (Shown in Figure 1: Optional Equipment for RV290-830 tanks), ensure tank is completely empty prior to lifting. All tanks must also be free of hold down anchors prior to lifting. If relocating to another form of transport, ensure points a, b and c are followed again.

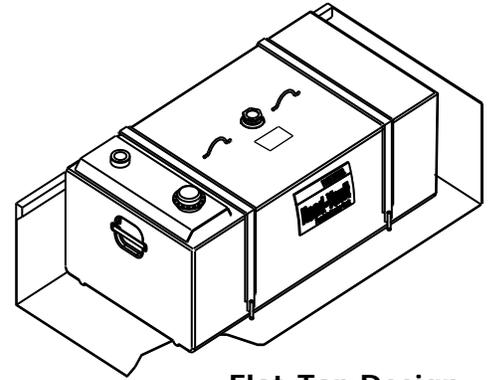
Anchoring installation (see Figure 1 to determine which method is applicable to the tank model being installed)

1. **Steel Strap Installation:** Locate the hold-down straps and neoprene pads so that each strap is flat against the tank as shown in Figure 1. The neoprene pad is to be installed under each hold-down strap prior to tightening. ***Hold-down straps are NOT to be welded to the tank / IBC in any manner.***
2. **J-Bolt Installation:** Locate the Base Brackets, D-rings, J-Bolts and neoprene pads as shown in Figure 1. The neoprene pad is to be installed between the base bracket and bottom of the tank. ***Use a minimum of 15 ft-lb torque to fasten the nuts on the j-bolts.***
3. **Ratchet strap installation:** Locate the D-ring brackets as close to the tank shell as possible and mount to the truck bed using the hardware provided. To prevent lateral movement of the tank during transport, the straps can be angled around the pump and fill fitting as shown in Figure 1.
4. **Before drilling any holes, ensure that no critical locations such as frame, fuel lines, brake lines or electrical lines are affected. DO NOT drill through the truck frame, as this can lead to frame cracking or failure with potential to cause serious injury or death. Drill holes through truck box or deck floor only.** Ensure that the IBC is properly secured to the platform or deck using the hold down straps and hardware supplied.
5. Roll Guards are supplied in some parts kits for protection of the pump and must be mounted to the tank using the hardware supplied. Where a pump box assembly is used, only one guard is necessary.
6. If the tank / IBC is equipped with a discharge pump, it must not weigh more than 12 kg (not including hose and nozzle), be able to withstand 200 kPa (29 PSI) and have a shut-off valve on the outlet side, or the pump must be isolated from the tank by a valve which can be closed off in an effective manner. ***During transport, the valve must be in a closed position.***
7. Before filling the tank (either fully or partially) with flammable liquids, ensure that a 'Transport of Dangerous Goods Decal for Flammable Liquids' is installed (see page 4). ***Moving the tank and/or the vehicle carrying this tank in any manner without this decal is a violation of Transport Canada requirements.*** This decal is the responsibility of the tank owner and is not provided by Westeel. Consult distributor or Safety Supply Store for availability and requirements.
8. Once the tank is installed as described above, fill the tank with fuel and mark the position of the straps on the tank with a water soluble marker. Go on a trial road trip, frequently stopping the vehicle and checking the position changes of straps with respect to the marked tank. The position should not change. ***Re-tighten strap nuts after a few days of use. Be sure to check straps periodically to ensure tank remains secure.***
9. On a yearly basis, check all parts, including paint, for damage. Touch up paint scratches and chips using compatible enamel paint. Maintaining the paint coating on the tank helps prevent rust from forming. **Rust can increase the likeliness of tank failure and / or reduce the useable life of the tank.**

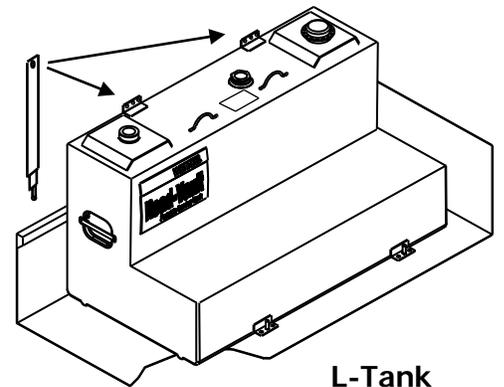
FIGURE 1: TANK INSTALLATION DIAGRAMS



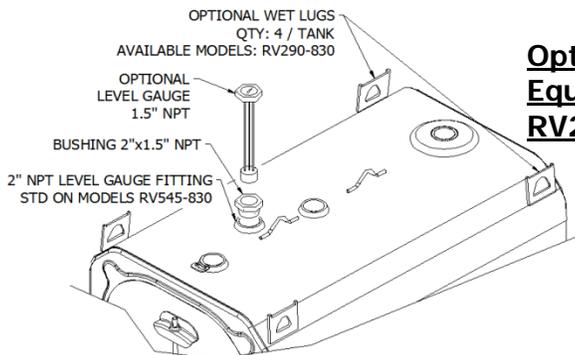
**Models RV285, 290, 450, 545,
680 & 830 *Ratchet strap available on**



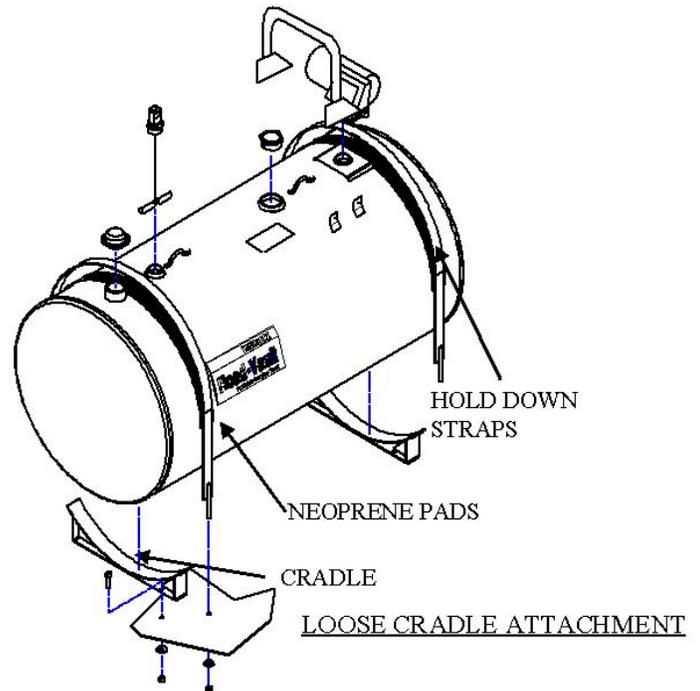
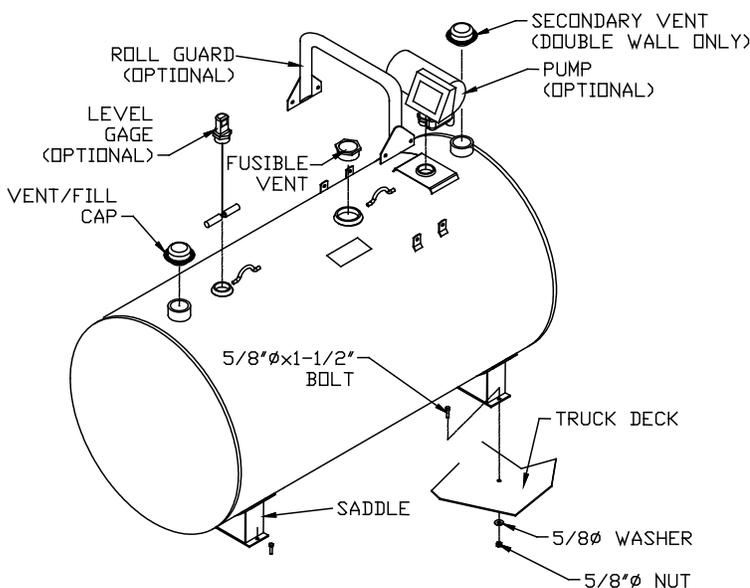
Flat-Top Design



L-Tank



**Optional
Equipment for
RV290-830 Models**



PERIODIC LEAK TEST AND INSPECTION FOR ROAD VAULT TANK (IBC)

 **IMPORTANT:** The tank owner / user(s) are fully responsible for the testing and re-certification of these tanks.

As per Transport Canada Regulations and CGSB-43.146 code guidelines, *all code 31A IBCs* intended for the shipment of liquid dangerous goods must be leak tested and inspected by a facility holding a 'Certificate of Registration to Leak Test and Inspect Intermediate Bulk Containers' **within 60 months of the original date of manufacture, and every 60 months or less thereafter.**

Exception: IBC's $\leq 450L$ may be exempt from periodic leak testing provided they meet the requirements of exemption 1.33. See link below for additional info. It is the responsibility of the tank owner / user to ensure compliance with any TDG regulations.

<https://www.tc.gc.ca/eng/tdg/moc-ibc-faqunstandardizedibcs-246.html#ibcleaktestedinspected>

A list of testing facilities holding a 'Certificate of Registration to Leak Test and Inspect IBCs' is available online from Transport Canada at: <http://wwwapps.tc.gc.ca/saf-sec-sur/3/fdr-rici/ibc/ibcleak.aspx>

Procedure for Leak Test

Leak test shall be conducted on each container by applying air at a gauge pressure of not less than 20 kPa (3 PSI; 0.20 bar) for at least ten minutes. **Do not exceed 25 kPa (3.5 PSI; 0.30 bar).** The leak-tightness of the container shall be determined by a suitable method such as coating the seams and joints with a soapy solution, air pressure differential or immersion of the container in water. In the latter case, a correction factor shall be applied for the hydrostatic pressure. Vented closures shall either be replaced by similar non-vented closures or the vent shall be sealed during testing.

While under the test pressure, each container shall be visually inspected for leakage, defective fittings, welds or closures, structural components, significant gouges or other defects. Non-integral gaskets for threaded closures shall be replaced with new gaskets equivalent in performance to the original and suitable for the intended use.

Criteria for Passing Leak Test and Inspection

There shall be no leakage of air from any IBC. Any container displaying leakage or defects listed above that could render the container unsafe for the transportation of dangerous goods shall not qualify for dangerous goods service. Such containers shall have any specification marks removed or obliterated and the container identified as unfit for the use of dangerous goods service, unless the container is repaired or refurbished and passes the leak test and inspection.

Marking

On each IBC tank, Westeel provides a location and/or decal where inspection marking is to be recorded. The letter "R", the date [MM/YY] of the latest successful leak test / inspection, and the Transport Canada Certificate number of the leak tester shall be permanently and clearly marked within this allocated area or decal.

Leak Test and Inspection Records

A record of all containers leak tested and inspected shall be kept by the test facility *and the owner of the container* until the next leak test / inspection or for at least 60 months from the date of the last test. The record shall include the type of container, owner's name and address, test date, tank serial number, and the test facility's address and certificate number.

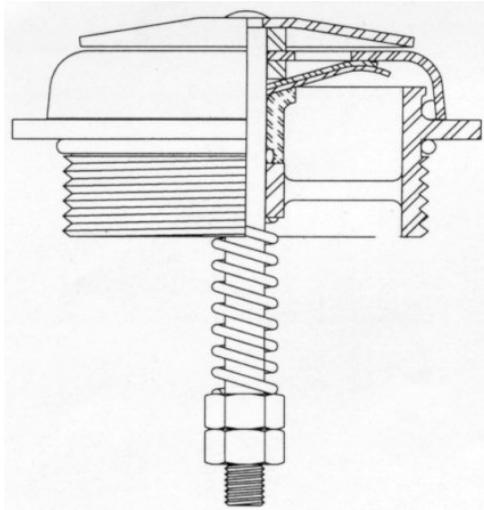
(Excerpts - including, but not limited to, test procedures, inspection, criteria for passing leak test and inspection, marking and inspection records - are referenced from the Transport Canada/United Nations Regulations for the Transport of Dangerous Goods Act and Packaging Code CAN/CGSB-43.146-02)

APPENDIX A – Fill and Venting Equipment Specifications

Fill and Vent Cap

Westeel Limited will supply a cap that will meet Transport Canada Relief Capacity requirements which specify a minimum of 50kPa (7 PSI). *Westeel is not responsible if another cap is substituted which is not approved.*

Note: Cap utilizes an O-ring between the fill fitting and cap threads and does not require installation with a wrench or pipe joint sealant for normal use.



Emergency Vents (Fusible Plug)

Mobile IBC Tanks are factory-fitted with an emergency vent in any one of the styles shown below.



FUSIBLE DISC PLUG



FUSIBLE POLY PLUG



FUSIBLE POLY DISC PLUG

Certified venting capacities:

BRASS 2" Vent → 52,500 CFH @ 5 PSI
ALUM 3" Vent → 130,400 CFH @ 5 PSI

2" Vent – 55,000 CFH @ 5 PSI

3" Vent -- 110,000 CFH @ 5 PSI

Vent will release at not more than 250 degrees Fahrenheit

Note: Replacement Fill/Vent or Emergency vent caps shown on this page are available from Westeel or through its authorized dealer network.