

Tank Wagon Vapour Vent and Rollover Testing Procedure

(Two-year mandatory testing)

- Pressure/Vacuum (PVV)
- Vapour Vent
- Emergency Relief Hatch

Common New Zealand tank wagon Manway and Vapour vent brands

- Civacon
- Liquip
- Treloar

Pre-Test Procedures

To be completed in conjunction with the manufacturer's specifications and recommendations

1. Remove Overfill Probe from the manway, ensure to mark and record the probe height.
2. Remove the Dip and Fill tubes
3. Disconnect the air system to the Vapour vents
4. Remove the complete **Manway** from the tank top inspect for damage
5. Remove the **Pressure Vacuum Vent** inspect for damage
replace seals and parts were required
6. Remove the **Emergency relief hatch** and latching bridges, strip down replace seals and parts as required. Ensure the bridge and latch hinges are free from corrosion, damage and moving freely. Anti-seize lubrication is recommended on the latch hinge pins.
7. Remove **Dip and Fill and cam lock adapters and caps** inspect seals and replace parts as required
8. Remove the **Vapour vent** (including the valance vents if vapour recovery is fitted) inspect seals and replace parts as required. Apply air to the vent and check the open and close operation whilst checking for potential air leaks.
9. Reassemble all removed items to the manway replacing gaskets and mounting fixings as require

Test Procedures

To be completed in conjunction with the manufacturer's specifications and recommendations

Note: Some items will require blanking off to complete testing. (example: Dip/Fill tube and overfill probe mounting) Some equipment may require a separate test rig to complete testing.

1. Place the complete assembled manway on the test rig and ensure there the rig is sealing.
2. Complete pressure and vacuum test on the **Pressure/Vacuum Valve** as per manufactures specification and record result

3. Complete the **Vapour Vent** pressure test, as per manufactures specification and record result
4. With the test rig in the rollover position apply air test pressure to the **Emergency relief hatch**, the hatch should not leak until the manufacturer's specification is achieved.
5. While the rig is in the roll over position check the **Vapour Vent** has no product leaks.
6. Once testing is complete, remove the manway from the test rig.

Re assembly

1. Re install the manway to the Tank wagon ensuring the coaming seal, coaming neck band, securing nuts and bolts are in a serviceable condition, replace if required.
2. Reinstall Dip and Fill tubes with new seals/ gaskets if required.
3. Reinstall the Overfill probe ensuring the original probe height is maintained replace the gasket and securing 'O' rings if required
4. Reconnect the air system to the vapour vents
5. Charge the system with air pressure and test for air leaks