



RECOMMENDATION FOR TANK TRUCK DESIGN

MARCH 2021

ISBN: 978-2-930160-23-8

D/2021/7512/055

By consulting and/or using this publication, the user acknowledges and agrees to be bound by the following stipulations. Eurobitume has made considerable efforts to compile this publication on the basis of reliable sources. However, Eurobitume cannot and does not guarantee the completeness, accuracy, reliability and effectiveness of the information contained in this publication for whatever purpose. Furthermore, the content of this publication may be changed, suspended, revised and/or removed by Eurobitume, at its sole discretion, at any time for whatever reason and without notice. Finally, except for cases of fraud, neither Eurobitume nor its members are liable for any loss, damages or injury whatsoever relating to the consultation or use of this publication, or the inability to do so. Eurobitume, March 2021, info@eurobitume.eu

PURPOSE

This document highlights key elements of delivery vehicles (tank trucks) that will enable safe operations during bitumen loading and discharge as follow:

Modes of loading:

- Loading by gravity from a secure platform in refineries and depots, by opening a manlid on the top of the vehicle;
- Bottom loading is not recommended by Eurobitume for safety reasons. Tank truck is not designed for bottom loading.

Modes of discharge:

- Pressure discharge;
- Discharge through ground-based pump;
- Discharge through onboard submerge pump.

BITUMEN TANK TRUCK DESIGN RECOMMENDATIONS

Regardless of the loading or discharge modes, Eurobitume recommends to pressurize or vent from the ground by means of any suitable device to prevent the driver from climbing onto the tank during unloading operations. Loading must be done from a secure platform.

Tank venting

- Before starting discharge operation the venting must be done from the ground by the driver.
- It is recommended to use ground vent tanks:
 - To prevent falls;
 - To prevent bitumen fumes exposure.

Vent valve

It is recommended to have tanks equipped with low pressure automatic valves **between 0.25 bar and 0.5 bar** to avoid gas accumulation in the tank roof during transport in case of degassing of the product.

Opening on the tank roof must be correctly dimensioned in relation to the pump flow rate. The aperture must have a **minimum diameter of 75 mm** to allow sufficient air flow in relation to the flow rate of the ground based pump used for discharge, to prevent damage to the tank.

Tank pressure measurement

In order to enable the driver to carry out loading operations safely from the loading facility secure platform in refineries or depots, the driver must ensure by means of any suitable device (e. g. pressure gauge) that there is no pressure in the tank before loading. Then he can operate the pressure release valve located on the manhole cover and open the manhole.

Ladders

Access to the top of the vehicle should be restricted in order to prevent falls from high.

Eurobitume
Boulevard du Souverain 165
B-1160 Brussels
Belgium
T: +32 2 566 91 40
E: info@eurobitume.eu



www.eurobitume.eu

 www.linkedin.com/company/eurobitume

 www.twitter.com/eurobitume