

Tanks for the transport of dangerous goods - Service equipment - Footvalve sizes other than 100 mm dia (nom)

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NATIONAL FOREWORD

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English Version

Tanks for the transport of dangerous goods - Service equipment - Footvalve sizes other than 100 mm dia (nom)

Citernes destinées au transport de matières dangereuses -
Équipement de service - Clapets de fond avec diamètre
nominal différent de 100 mm

Tanks für die Beförderung gefährlicher Güter -
Bedienungsausrüstung - Bodenventile mit einem
Nenndurchmesser von mehr oder weniger als 100 mm

This European Standard was approved by CEN on 25 August 2012.

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Foreword

This document (EN 16257:2012) has been prepared by Technical Committee CEN/TC 296 "Tanks for the transport of dangerous goods", the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by April 2013, and conflicting national standards shall be withdrawn at the latest by April 2013.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN [and/or CENELEC] shall not be held responsible for identifying any or all such patent rights.

This European Standard forms part of a coherent standards programme comprising the following standards under the general title.

"Tanks for transport of liquid dangerous goods with vapour pressure not exceeding 110 kPa (absolute pressure) at 50 °C and petrol - Service equipment" :

EN 13081, *Tanks for transport of dangerous goods — Service equipment for tanks — Vapour collection adaptor and coupler;*

EN 13082, *Tanks for transport of dangerous goods — Service equipment for tanks — Vapour transfer valve;*

EN 13083, *Tanks for transport of dangerous goods — Service equipment for tanks — Adaptor for bottom loading and unloading;*

EN 13308, *Tanks for transport of dangerous goods — Service equipment for tanks — Non-pressure balanced footvalve;*

EN 13314, *Tanks for transport of dangerous goods — Service equipment for tanks — Fill hole cover;*

EN 13315, *Tanks for transport of dangerous goods — Service equipment for tanks — Gravity discharge coupler;*

EN 13316, *Tanks for transport of dangerous goods — Service equipment for tanks — Pressure balanced footvalve;*

EN 13317, *Tanks for transport of dangerous goods — Service equipment for tanks — Manhole cover assembly;*

EN 14595, *Tanks for transport of dangerous goods — Service equipment for tanks — Pressure and vacuum breather vent;*

EN 14596, *Tanks for transport of dangerous goods — Service equipment for tanks — Emergency pressure relief valve.*

According to the CEN/CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

Introduction

The footvalve, also called emergency valve or internal security valve, the subject of this standard, is an internal self closing stop valve ensuring the primary containment to confine the dangerous substances within the tank when closed.

It allows the flow of dangerous substances in the unloading direction, that is, from the tank compartment into the run-off pipe only when externally actuated.

The non-pressure balanced footvalve shall be capable of allowing transfer of dangerous substances in the bottom loading direction through self-actuation by the hydraulic force of the loaded dangerous substances.

The pressure balanced footvalve does not allow flow of dangerous substances in either the loading or unloading direction when not externally actuated, and stops the flow if the external actuation is interrupted or disengaged.

1 Scope

This European Standard is applicable to non-pressure balanced and pressure balanced footvalves intended for loading and unloading and specifies the performance requirements, critical dimensions and tests necessary to verify the compliance of the equipment with this standard.

Footvalves covered by this European standard are unsuitable for use in applications where the product velocity exceeds 5 m/sec

The equipment specified by this standard is suitable for use with liquid petroleum products and other dangerous substances of Class 3 of ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road – (flammable liquids) which have a vapour pressure not exceeding 110 kPa at 50 °C and petrol, and which have no sub-classification as toxic or corrosive.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 13308:2002, *Tanks for transport of dangerous goods — Service equipment for tanks — Non-pressure balanced footvalve*

EN 13316:2002, *Tanks for transport of dangerous goods — Service equipment for tanks — Pressure balanced footvalve*

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 13308:2002 and EN 13316:2002 apply.

4 Functions

The requirements for non-pressure balanced footvalves shall be in accordance with Clause 4 of EN 13308:2002 and for pressure balanced footvalves in accordance with Clause 4 of EN 13316:2002.

Smaller dimensions for other purposes than loading and unloading (e.g. emptying the water sump of aircraft refuellers) may be used provided that all the requirements given in the standard are fulfilled. If smaller sizes than those given in the annexes of this standard are chosen, the dimensions of the flanges for connecting the tank and the pipework shall be designed for those dimensions.

5 Design characteristics

The minimum requirements for each type of footvalve are as follows.

5.1 Pressure rating

The requirements for non-pressure balanced footvalves shall be in accordance with 5.1 of EN 13308:2002 and for pressure balanced footvalves in accordance with 5.1 of EN 13316:2002.