SLOVENSKI STANDARD
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Železniške naprave - Vagoni-cisterne - 7. del: Delovni odri (ploščadi) in lestve

Railway applications - Tank wagons - Part 7: Platforms and ladders

Bahnanwendungen - Kesselwagen - Teil 7: Arbeitsbühnen und Leitern

Applications ferrovaires - Wagons citernes - Partie 7: Plate-formes et échelles

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ICS:

45.060.20	Železniški vagoni	Trailing stock

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Railway applications - Tank wagons - Part 7: Platforms and ladders

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

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EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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Foreword

This document (FprEN 12561-7:2010) has been prepared by Technical Committee CEN/TC 256 “Railway applications”, the secretariat of which is held by DIN.

This document is currently submitted to the Unique Acceptance Procedure.

This document will supersede EN 12561-7:2004.

This series of European Standards "Railway applications — Tank wagons" consists of the following parts:

— Part 1: Identification plates for tank wagons for the carriage of dangerous goods;

— Part 2: Bottom emptying devices for liquid products including vapour return;

— Part 3: Bottom filling and emptying devices for gases liquefied under pressure;

— Part 4: Devices for top filling and emptying of liquid products;

— Part 5: Devices for vapour return while filling or emptying of liquid products;

— Part 6: Manholes;

— Part 7: Platforms and ladders;

— Part 8: Heating connections.

1 Scope

This European Standard applies to ladders, platforms and walkways on tank wagons fitted with top devices. It does not apply to crossing gangways nor to steps in so far as they are covered by UIC leaflets. This European Standard defines the important dimensions for manufacturers and operators of such tank wagons and takes into consideration the relevant and applicable construction and safety guidelines.

This standard applies to new tank wagons build after the 1st January 2010.

In consideration of the smaller loading gauge within the UK, this standard does not apply to wagons operating exclusively therein.

2 Normative references

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

EN 795, *Protection against falls from a height — Anchor devices — Requirements and testing*

EN ISO 6346:1995, *Freight containers — Coding, identification and marking* (ISO 6346:1995)

TSI Rolling Stock — Freight Wagons

UIC 535-2, *Standardisation and positioning on wagons of steps, end platforms, gangways, handrails, tow hooks, automatic coupler (AC), automatic draw-on coupling and brake valve controls on the UIC member RUs and OSJD member Rus* [1)]

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
platform
level floor at the top of the tank for inspection, maintenance and operational purposes

3.2
walkway
structure supporting grating to provide access between ladders and platforms

3.3
protective device
device to deflect operating personnel from protruding parts of a moving tank wagon in accordance with UIC 535-2

1) May be purchased from: Railway Technical Publications (ETF), 16 rue Jean Rey, F-75015 Paris

4 Ladders

4.1 General

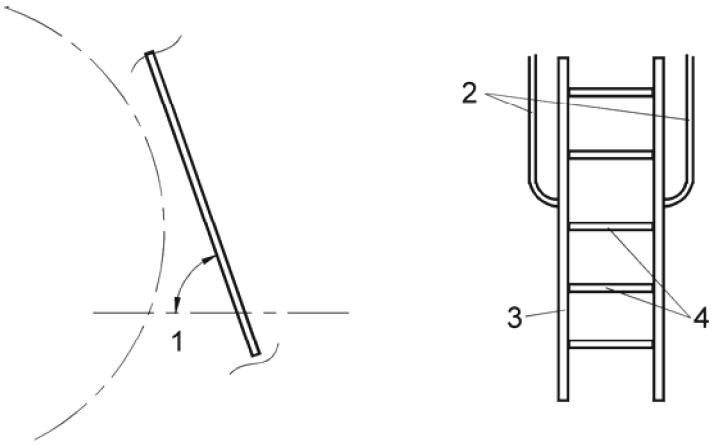
Where tank wagons are fitted with ladders, they shall either be fitted with one fixed ladder located at the end or with a fixed ladder on each side of the tank wagon.

NOTE The end ladder is usually fitted at the crossing gangway.

Ladders shall be fitted with 2 lateral handrails.

NOTE For traffic of continental tank wagons running in Great Britain, the kinematic gauge for Great Britain rules defined in the Technical Specification for Interoperability for freight wagons (TSI) also apply and to avoid conflict between these rules, local arrangement for handrail should be allowed to stay in the gauge.

The pitch of the ladder as shown in Figure 1 shall be between 75° and 90°. Where the pitch is less than 75° steps shall be used in place of rungs. The depth of the steps shall be at least 80 mm.



Key

1 Pitch

2 Handrails

3 String

4 Rung

Figure 1 — Terms

The rungs and the steps shall be welded to the strings and shall be slip-resistant. Rung slip resistance can, for example, be achieved by using square or flat bars with a cross section as shown in Figure 2.

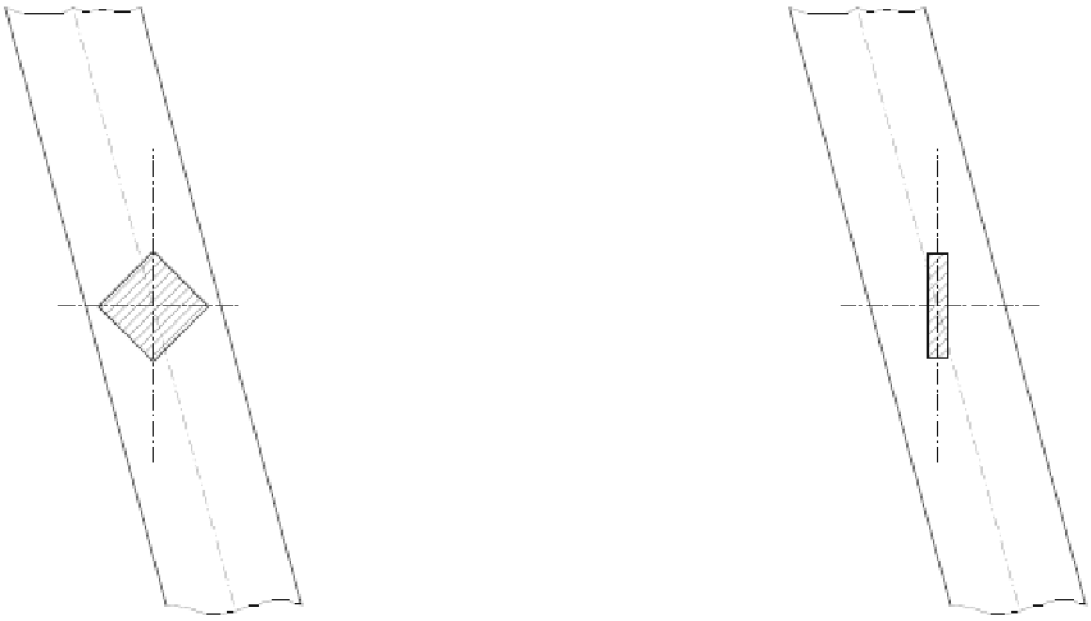


Figure 2 — Examples of rung cross sections

If they are from square or rectangular section, they shall not have sharp edges.

Steps shall have a grating according to the requirements of Clause 7.

4.2 Main dimensions

The main dimensions of ladders shall be as shown in Figure 3 and Figure 4. All the rungs shall be equally spaced.

The sides of square steel rungs shall be between 20 mm to 30 mm. Different shaped rungs of equivalent strength are permitted provided they are slip resistant (e.g. Rectangular steel rungs with a cross section of 40 mm $\times$ 8 mm).

The clearance above and behind each rung shall be as shown in Figure 5.

The handrail shall be made from circular cross section tubes or bars of at least 20 mm outside diameter.

The ladder handrail shall be connected to the toe plates of the walkways or platforms.

The clearance around the handrail shall be at least 100 mm.

Where lateral ladders protrude more than 250 mm from the chassis of the tank wagon, a protective device shall be fitted at a height of between 1 200 mm to 1 400 mm above the rail (see Figure 6).

The lateral ladders shall not infringe the loading gauge.