

TOORNAFTA JA VEDELAD NAFTATOOTED
Horisontaalsete silindriliste mahutite kalibreerimine
Osa 1: Käsitsi mõõtemetodid

Petroleum and liquid petroleum products
Calibration of horizontal cylindrical tanks
Part 1: Manual methods
(ISO 12917-1:2017, identical +
ISO 12917-1:2017/Amd 1:2025, identical)

EESTI STANDARDI EESSÕNA**NATIONAL FOREWORD**

See Eesti standard EVS-ISO 12917-1:2017+A1:2025 sisaldab rahvusvahelise standardi ISO 12917-1:2017 ja selle muudatuse Amd 1:2025 ingliskeelset teksti.	This Estonian standard EVS-ISO 12917-1:2017+A1:2025 consists of the English text of the international standard ISO 12917-1:2017 and its amendment Amd 1:2025.
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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 28, *Petroleum products and lubricants*, Subcommittee SC 2, *Measurement of petroleum and related products*.

This second edition cancels and replaces the first edition (ISO 12917-1:2002), which has been technically revised with the following changes.

- The total length of the tanks has been limited and also only the calibration via ISO 7507-1 is described in order to improve precision.
- Most of the figures have been improved in order to further clarify the measurement procedures. These, in turn, have been described more logically and in a more useful order. For instance, tank shell measurements are no longer described separately and the former Annex on “tilt” has been incorporated in the text.
- A new annex on calibration uncertainties has been added.
- Correction for tank tilt is now calculated rather than read from a figure.

It also incorporates the Technical Corrigendum ISO 12917-1:2002/Cor 1:2009.

A list of parts in the ISO 12917 series can be found on the ISO website.

A1 Amendment Amd 1 Foreword

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This document was prepared by Technical Committee ISO/TC 28, *Petroleum and related products, fuels and lubricants from natural or synthetic sources*, Subcommittee SC 2, *Measurement of petroleum and related products*.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html. **A1**

Introduction

This document forms part of a series on tank calibration methods. In some countries, some or all of the items covered by this document are subject to local regulations. The attention of the user is drawn to the fact that it is possible that differences exist between this document and those regulations.

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Petroleum and liquid petroleum products — Calibration of horizontal cylindrical tanks —

Part 1: Manual methods

1 Scope

This document specifies manual methods for the calibration of nominally horizontal cylindrical tanks, installed at fixed locations.

The methods in this document are applicable to insulated and non-insulated tanks, either when they are above-ground or underground. The methods are applicable to pressurized tanks and to both knuckle-dish-end and flat-end cylindrical tanks as well as elliptical and spherical head tanks.

This document is applicable to tanks inclined from the horizontal, provided a correction is applied for the measured tilt.

Although this document does not impose any limits on the maximum tank diameter and maximum tank tilt to which this document is applicable, the practical limits would be about 4 m in diameter and 10° in tilt.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

ISO 7507-1:2001, *Petroleum and liquid petroleum products — Calibration of vertical cylindrical tanks — Part 1: Strapping method*

3 Terms and definitions

No terms and definitions are listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

4 Precautions

4.1 General

The general and safety precautions specified in ISO 7507-1 shall be applied.

4.2 Internal method

Before a tank which is to be calibrated is entered, a safe-entry certificate shall be obtained. All lines entering the tank shall be disconnected and blanked.

NOTE The attention of the user is drawn to the possible existence of local regulations regarding the safe-entry certificate and entry into tanks, which have contained leaded fuels.