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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 13236-2011

Replacing GB 13236-1991

**Petroleum and liquid petroleum products -- Equipment for
measurement of liquid levels in storage tanks -- Manual method
(English Translation)**

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Foreword

This revised standard adopts ISO 4512:2000 "Petroleum and liquid petroleum product storage tank level measurement equipment Hand Law" (English Chinese Version).

This standard is based on ISO 4512:2000 re-drafted.

Taking into account China's national conditions, in the use of ISO 4512:2000, the present standard do the following technical corrections.

--- Prepared in accordance with the requirements of the standard, to increase the "standard applies to manual level measurement devices are designed in a range of a chapter, manufacturing Selection and use. ";

--- Since the standard is referenced in GB/T 8927, GB/T 13894 and ISO 4269, thus increasing these three criteria cited as a normative with the file;

--- Taking into account the representation method of uncertain value, delete all the text in front of the uncertainty of the value " $\pm$ ";

--- Consider the expression method of error value, prior to the full text of the error values \u200b\u200bare not " $\pm$ " increase " $\pm$ ";

--- To delete paragraph 2 5.9, on the grounds that when the oil level measurement, more use of long-distance ruler, and taking into account the length of the foot Making the principles of the error within a small distance is generally small, otherwise it can not achieve long-range accuracy.

--- Suitable for actual use, modify the last sentence in the last paragraph of 5.9 is "when manufactured according to standard tension or calibration scale Belt use in different strains may be required length correction. ";

--- Taking into account the scale and with a foot mound of connection may be detachable connection, in order to avoid misconnection other foot mound, increase "c 5.10 logo) system Column number ", increased 7.8 logo" b) serial number (and feet with consistency)";

--- To ensure that the water level measured bottoming feeling, sag and test water gauge connected with the smooth feet sink into the oil, add the measured water on Chapter 9 Ruler quality relevant content about the reg number adjusted accordingly;

--- The corresponding "by volume unit scale of the measuring rod" compilation format, "sounding rod 13.5.1" to "13.5.1 according to the length of a single Bit scale measuring rod "; while the original 13.5.1,13.5.2,13.5.3,13.5.3.1 and 13.5.3.2 modify 13.5.1.1,13.5.1.2,13.5.2,13.5.2.1 and 13.5.2.2.

--- Suitable for our use, delete the original first paragraph 13.5.2 "corresponds to the starting position and the relevant calibration table would be the largest body Product labeling in the vicinity of the transverse bar. " for ease of use, this standard also made the following editorial changes.

--- Delete references;

--- Increase in Article 5.1.1. "Note. Size and foot mound with a connection can be either removable, it can be fixed with a ruler and measured empty.

Ruler or measuring water gauge connections, can be more easily measure the high air and water high. ";

--- Last increased in 7.4 "Note. When the foot is usually connected with heavy dipstick mound, you can consider adjusting the scale with the manufacture and calibration Standard tension, but the accuracy of the calibration requirements remain unchanged. ";

This standard replaces GB 13236-1991 "The amount of oil dipstick and steel Strapping technical conditions." this standard and GB 13236-1991 main technical changes are.

--- The original mandatory standards to voluntary standards;

--- Standard name from "The amount of oil dipstick and steel Strapping technical conditions" to "oil and liquid petroleum product storage tank level Hand Workers measuring equipment ";

--- Remove the oil Steel Strapping technical content (1991 version of the standard name, Chapter 1 and Chapter 4);

--- Modify the dipstick with the tensile strength of the technical requirements (1991 Version 3.2.1; edition 5.3);

--- Canceled dipstick level I and II grade classification accuracy, use instead of the maximum permissible error of scale (30m length within the 1991 Edition 3.7; 5.9 edition).

--- For added versatility of portable electronic measuring device can measure the level and temperature, but also increased the sounding rod, measuring empty bar, community Other level measurement equipment and related technical detect cream and steam stop valve, etc. (edition Chapter 10, Chapter 11, Section 12 and Chapter 13).

This standard by the National Standardization Technical Committee on products and lubricant oil (SAC/TC280) proposed.

This standard by the National Petroleum products Petroleum measurement of static and light hydrocarbons and lubricants Technical Committee of Standardization Technical Committee (SAC/TC280/SC2) centralized.

1 Scope

This standard specifies the types of manual measurement within the tank or other storage containers and liquid petroleum or petroleum product level corresponding volume of required equipment Class and technical conditions.

This standard applies to the design manual level measurement equipment, manufacture and use of selection.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

GB 3836.4 explosive gas environment with electrical equipment - Part 4. Intrinsic safety "i" (GB 3836.4-2000, eqv IEC 60079-11:1999) GB/T 8927 Petroleum and liquid petroleum products - Temperature measurements - Manual methods (GB/T 8927-2008, ISO 4268:2000, MOD) GB/T 13894 Petroleum and liquid petroleum products - Measurement of liquid level (manual method) ISO 1998 (all parts), petroleum industry terminology ISO 4269 Petroleum and liquid petroleum products - Tank calibration of liquid volumetric flowmeter incremental method

3 Terms and Definitions

ISO 1998 (all parts), and established the following terms and definitions apply to this standard.

Calibration table Tank table Tank capacity table Deep self-test reference plate and/or level height correspondence table tank capacity or volume measurement reference point measurement.

Note: For oil tankers, commonly known as the tank capacity table.

Real high dip; innage Sounding reference plate above the liquid level in the tank.

Sounding rod dip-rod; dip-stick by volume or unit of length scale wooden rods or other rigid material, through which the liquid can be measured by the depth of the small tank calibration Number of bodies.

Ruler with dip-tape

Use empty sounding or measuring directly or indirectly measure the standard oil tank high or high water use are steel scale.

Dipstick mound dip-weight Connected to the foot with the lower end, the quality can be maintained with a vertical foot, shaped to penetrate the base plate of the residual sludge weight.