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

GB/T 28757-2012

**Cranes other than mobile, tower and floating cranes and tower
cranes -- General requirements for stability**

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Foreword

This standard rule according to GB/T 1.1-2009 given draft.

This standard uses redrafted law revision adopted ISO 4304. 1987 "in addition to flow-type floating cranes and crane stability

Basic requirements "(in English).

This standard and ISO 4304. Difference and Its Cause 1987 is as follows.

--- Because China has GB/T 20304-2006/ISO 12485.. 1998 "tower crane stability requirements" This standard name

And scope of the changes and adjustments made as follows.

* the standard name was changed to "" In addition to the flow type, tower cranes and floating cranes General requirements for stability ". "

* standard range "(except mobile type and floating cranes) various types of cranes" by a changed to "various types of cranes

(Flow type, except for the tower and floating crane). "

--- On normative references, this standard has been adjusted technical differences, in order to adapt our technical conditions, the adjusted situation

Focus is reflected in the status of Chapter 2, "Normative references", the specific adjustments are as follows.

* equivalents adoption of international standards GB/T 6974.1 instead of ISO 4304. 1987 references ISO 4306-1.

For ease of use, this standard also made the following editorial changes.

--- The International Standard mount section 3.2 to modify the contents of this standard in

3.2.1, and international standards in terms of number 3.2.1

3.2.2 and modify the terms of this standard number 3.2.2 and 3.2.3 respectively.

The standard proposed by China Machinery Industry Federation.

This standard by the National Standardization Technical Committee crane (SAC/TC227) centralized.

This standard was drafted. Dalian University of Technology, Beijing Materials Handling Machine Design and Research Institute, the National Quality Supervision and Inspection handling equipment center.

1 Scope

This standard specifies the calculations to verify GB/T 6974.1 defined various types of cranes (except mobile style, tower and floating crane)

Anti-tipping stability conditions to be met, it is assumed crane placed on a solid surface or horizontal support rails.

This standard does not include crane in its orbit validation slip.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated edition applies to this article

Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 6974.1 crane terminology - Part 1. General terms (GB/T 6974.1-2008, ISO 4306-1.2007,

IDT)

ISO 4302 crane wind load estimation (Cranes-Windloadassessment)

3.1 Calculation

3.1.1 When the stabilizing torque crane algebra and algebra when greater than tipping moment is that the crane is stable.

3.1.2 Table 1 should be used to value the stability of algebra and checksum calculation of the crane tipping moment.

In all calculations, the role and position of the crane components, all loads and forces shall

be according to the most unfavorable combination of direction and action

To consider.

3.1.3 crane inclined surface work, the manufacturer in the calculation of the stability, the conditions should be given consideration.

3.1.4 Press with load crane design, calculation, in addition to Table 1 Condition II predetermined load, it must also consider requiring the manufacturer

Track allows maximum vertical deviation of the force generated.

3.1.5 permanently installed (fixed) crane, the specific use of the site or regional seismic effect in Table 1 should I, II, III working conditions

Next to be considered separately as an additional load.

3.1.6 When calculated according to Table 1, it should consider the weight of the load caused by the crane and its components, including the crane in working condition testimony

All the weight load of the spreader caused permanent member.

3.2.1 verification requirements

When the crane is in the unloaded state, all the movable member is retracted into the work closest to the line after tipping position, after the anti-working state

It should be required to rollover Stability 3.2.2 or 3.2.3 (also in accordance with Table 1 condition IV) for verification.

3.2.2 Moment Method

Work by the wind load W_1 and inertial forces generated by tipping moment D should not exceed 90% of the steady torque.