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

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Replacing GB/T 26949.7-2016

**Industrial trucks - Verification of stability - Part 7: Bidirectional
and multidirectional trucks**

工业车辆 稳定性验证 第7部分：双向和多向运行叉车

(English Translation)

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1 Scope

This document describes a test method for verifying the stability of forklifts operating in two and multiple directions with tilting or non-tilting masts or forks.

This document applies to forklifts equipped with load handling attachments under the same operating conditions.

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations for undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document.

ISO 5053-1 Industrial Trucks Terminology Part 1: Industrial Truck Types
(Industrialtrucks-Vocabulary-Part 1.

Note: GB/T 6104.1-2018 Industrial vehicle terminology and classification Part 1: Industrial vehicle types (ISO 5053-1:2015, IDT) ISO 22915-1 Industrial trucks stability verification Part 1: General (Industrialtrucks-Verificationofstability-Part 1: General) Note. GB/T 26949.1-2020 Industrial vehicle stability verification Part 1: General principles (ISO 22915-1:2016, IDT)

3 Terms and definitions

The terms and definitions defined in ISO 5053-1 and ISO 22915-1 apply to this document.

4.1 General

Test conditions should comply with the requirements of ISO 22915-1.

4.2.2 Test 1~Test 5

The forklift should be placed on an inclined platform, and its drive/steering axle BB and outrigger (load/steering) axle CC should be parallel to the inclined platform.

The tilt axis XY of the platform is shown in Table 1.

4.2.3 Test 6~Test 9

The vehicle should be placed on the tilted platform so that the MN line or outrigger (load/steering) bridge CC is parallel to the tilt axis of the tilted platform Line XY, see Table 1.

Point M is defined as follows.

a) For vehicles with non-rigid support casters. Point M is the intersection of the center line of the drive/steering wheel axle and the center plane of the drive wheel width.

Vertical projection of a point on an inclined platform;

b) For vehicles with drive/steering wheels mounted on an articulated frame. point M is the intersection point of the articulated bridge and the transverse axis of the articulated frame at the inclination Vertical projection on the platform;

c) For vehicles with a single drive/steering wheel. Point M is the intersection of the center line of the drive/steering wheel axle and the center plane of the drive wheel width.

Vertical projection of a point on a tilted platform.

As shown in Table 1, point N is defined as the center point of the contact surface of the load wheel closest to the tilt axis XY on the tilt platform.

4.3.1 General

When conducting test 1, when the fork is lifted from the low position, the horizontal position of the load reference point E should not change, as shown in Figure 2.

Make the mast vertical and lift the specified test load to about 300mm above the inclined platform. The front surface of the vertical section of the fork is vertical, consisting of If the fork or fork frame has a fixed relationship with the center of mass of the test load, point E can be established on the fork or fork frame, as shown in Figure 2a) and Figure 2b) shown. Point E should be used as the reference datum for point F of the tilt platform. When the mast is raised, a new F1 may be created on the tilting platform points, as shown in Figure 2c) and Figure 2d). The new F1 point can be returned to the initial position F, as shown in Figure 2e) and Figure 2f).

For vehicles with a tiltable mast, it should be possible to adjust the mast inclination angle within the allowable range of its design value to change the position of F1 point, as shown in Figure 2a),

Figure 2c) and Figure 2e).

4.3.2 Requirements for vehicles with non-tiltable masts

The position of F1 point can be adjusted by adjusting the inclination of the fork or fork frame within the allowable range of the vehicle design value, and allowing the fork frame to retract (if necessary) or retract the mast to make changes, as shown in Figure 2b), Figure 2d) and Figure 2f).

4.4 Lifting height for simulated operation test

When conducting simulated running tests (Test 5, Test 6 and Test 7), start the measurement from the fork root. For rated lifting capacity not greater than 10t for vehicles with a rated lifting capacity of more than 10t, the upper surface of the forks should be 300mm higher than the tilted platform; for vehicles with a rated lifting capacity greater than 10t, the upper surface of the forks should be higher than the tilted platform.

Inclined platform 500mm.

5 Stability verification

Vehicle stability should be verified according to Table 1.