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

GB/T 17772-2018

Replacing GB/T 17772-1999

**Earth-moving machinery -- Laboratory evaluations of protective
structures -- Specifications for deflection-limiting volume**

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009.

This standard replaces the provisions of GB/T 17772-1999 "Laboratory Identification of Flexural Limits for Earth-moving Machinery Protection Structures". This standard

Compared with GB/T 17772-1999, the main technical changes except editorial changes are as follows.

- Added some reference standards (see Chapter 2);
- Increased classification of flexural limit (DLV) (see Chapter 3);
- Increased the size and use of the deflection limit (DLV) (see Chapter 4).

This standard uses the translation method equivalent to the ISO 3164.2013 "laboratory mechanical protection structure of the laboratory to determine the deflection limit

Regulations.

The documents of our country that have a consistent correspondence with the international documents referenced in this standard are as follows.

---GB/T 8591-2000 earth-moving machinery driver seat calibration point (ISO 5353.1995, eqv)

---GB/T 8498-2017 Basic type identification, terminology and definition of earthmoving machinery (ISO 6165.2012, IDT)

This standard was proposed by the China Machinery Industry Federation.

This standard is under the jurisdiction of the National Earthmoving Machinery Standardization Technical Committee (SAC/TC334).

This standard was drafted. Tianjin Engineering Machinery Research Institute Co., Ltd.

1 Scope

This standard specifies the laboratory-defined deflection limit (DLV) for earth-moving machinery protection structures as defined in ISO 6165.

The driver of the earthmoving machinery provides protection.

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

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

GB/T 8420-2011 The size of the earth-moving machinery driver and the minimum activity space of the driver (ISO 3411.2007, IDT)

ISO 5353.1995 Earth-moving machinery, agricultural and forestry tractors and machinery driver seat calibration points (Earth-movingmachinery,and tractorsandmachineryforagricultureandforestry-Seatindexpoint)

ISO 6165 earthmoving machinery basic type identification, terminology and definition (Earth-movingmachinery-Basictypes-I-Identificationandtermsanddefinitions)

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

Flexibility limit deflection-limitingvolume; DLV

Approximate value of the tall body driver's sitting posture as defined in GB/T 8420.

3.1.1

Right angle deflection limit orthogonalDLV

The flex limit in 3.1 refers to the driver's vertical projection approximation.

Note. See Figure 1.

3.1.2

Fillet deflection limit roundedDLV

The vertical deflection limit in 3.1.1 is rounded at the corners of the curvature close to the driver (eg, head, shoulders).

Note. See Figure 2.

3.1.3

Right angle top plane orthogonal top head plane

A rectangular horizontal plane of 270 mm by 330 mm is used to fold into a 3.1.1 vertical deflection pole in a 3.1.2 circular deflection limit.

Limited top level.

Note 1. See Figure 3.

Note 2. The top plane is used for the drop protection structure test of the circular deflection limit.

3.2

Seat calibration point seat index point; SIP

The point on the vertical plane of the seat center specified in ISO 5353.