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NATIONAL STANDARD OF THE PEOPLE'S REPUBLIC OF CHINA

GB/T 8595-2023

Replacing GB/T 8595-2008

Earth-moving machinery - Operator's controls

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1.Structure and Drafting Rules of Standardization Documents"

Drafting.

This document replaces GB/T 8595-2008 "Control Devices for Earthmoving Machinery Drivers". Compared with GB/T 8595-2008, except for the structure

In addition to adjustments and editorial changes, the main technical changes are as follows.

a) Changed the scope and added a description of unapplicable devices (see Chapter 1, Chapter 1 of the.2008 edition);

b) Added terms such as host machine, working device, accessory device, joystick, single-lever control device, double-lever control device (see 3.1, 3.5~

3.8, 3.11~3.20);

c) The content of the main control device has been changed and the accessory control device has been added (see 3.2, 3.1 of the.2008 edition);

d) Added an overview of the control device (see 4.1);

e) Changed the distance between adjacent center lines of finger-operated control devices without spacers (see Table 1,.2008 version

4.2.2);

f) Added requirements for distance between keys on the touch screen or buttons on the joystick, expected non-simultaneous use and expected simultaneous use of the pedals.

Pedal spacing requirements when boarding (see Table 1);

g) Added the principles that the type, location and operation method of typical main control devices should comply with (see 5.1.1);

h) Added requirements for foot-operated control devices (see 5.1.5);

i) The electrical signal requirement is deleted (see 5.1.5 of the.2008 version);

j) Added requirements for drivers entering and exiting the driver's position (see 5.1.7);

k) Added gear/transmission/speed selection control requirements (5.1.8);

l) The basic functions of the multi-function control device and the content of the additional control mechanism on the device have been changed (see 5.2, 5.2 of the.2008 edition);

m) Changed the list of "controlling forces" (see Chapter 6, Chapter 6 of the.2008 edition);

n) Added example diagrams of the main engine and inverted U-shaped control device (see Figure A.1~Figure A.3);

o) Added control types, locations, operating requirements and examples of attachments (see Appendix C).

This document is equivalent to ISO 10968.2020 "Controls for drivers of earthmoving machinery".

Please note that some content in this document may be subject to patents. The publisher of this document assumes no responsibility for identifying patents.

1 Scope

This document specifies requirements and guidance for machine controls directly operated by the driver of earthmoving machinery as defined in ISO 6165.prescribed hand

Finger, hand or foot control devices, but does not limit the application of other control forms, control positions or control actions.

This document does not apply to devices not directly related to machine control.

Note. For machines with driver-controlled remote controls see ISO 15817.

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 3411 Earth-moving machinery driver's body dimensions and driver's minimum movement space (Earth-movingmachinery-

Note. GB/T 8420-2011 Body dimensions of earthmoving machinery drivers and minimum movement space of drivers (ISO 3411.2007, IDT)

ISO 3450 Performance requirements and test methods for braking systems of earth-moving machinery, wheeled or high-speed rubber tracked machines (Earth-

Note. GB/T 21152-2018 Performance requirements and test methods for braking systems of earthmoving machinery wheeled or high-speed rubber tracked machines (ISO 3450.

2011,MOD)

ISO 5010 Earth-moving machinery wheeled machine steering requirements (Earth-movingmachinery-Wheeledmachines-

Note. GB/T 14781-2014 Steering requirements for tire-type earthmoving machinery (ISO 5010.2007, IDT)

ISO 6405-1 Symbols for operator controls and other display devices of earth-moving machinery Part 1.General symbols (Earth-

Note. GB/T 8593.1-2021 Symbols for driver controls and other display devices of earthmoving machinery Part 1.General symbols (ISO 6405-1.

2017,IDT)

ISO 6405-2 Symbols for operator controls and other display devices of earthmoving machinery Part 2.Machines, work equipment and accessories

Note. GB/T 8593.2-2021 Symbols for driver controls and other display devices of earthmoving machinery Part 2.Machines, working devices and accessories

Special symbols (ISO 6405-2.2017, IDT)

ISO 10265 Performance requirements and test methods for braking systems of tracked machinery for earth-moving machinery (Earth-moving

Note. GB/T 19929-2014 Performance requirements and test methods for braking systems of tracked earthmoving machinery (ISO 10265.2008, IDT)

ISO 17063 Performance requirements and test methods for braking systems of earth-moving machinery for pedestrian operated machines (Earth-movingma-

cedures)

Note. GB/T 25609-2010 Braking system performance requirements and test methods for earth-moving machinery and pedestrian operated machines (ISO 17063.2003, IDT)