

ICS 53.100

CCS P 97



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

GB/T 38181-2019

Earth-moving machinery - Quick couplers - Safety

Issued on: October 18, 2019

Implemented on: May 1, 2020

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

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Foreword

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

This standard uses the translation method equivalent to ISO 13031.2016 "Safety of Quick Connect Equipment for Earth-moving Machinery".

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

--- GB 25684.1-2010 Earthmoving machinery safety Part 1. General requirements (ISO 20474-1.2008, MOD)

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. Jiangsu Xugong Engineering Machinery Research Institute Co., Ltd., Longgong (Shanghai) Machinery Manufacturing Co., Ltd., Shandong Lingong

Cheng Machinery Co., Ltd., Tianjin Construction Machinery Research Institute Co., Ltd., Liuzhou Liugong Excavator Co., Ltd., Fujian Province Xuanxuan Technology Co., Ltd.

the company.

1 Scope

This standard specifies the safety requirements for quick-connect devices for earth-moving machinery as defined in ISO 6165.

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.

ISO 6165 earthmoving machinery basic type identification, terminology and definition
(Earth-moving machinery-Basic types-

Identification and terms and definitions)

ISO 6750 Earthmoving Machinery Driver Manual Content and Format
(Earth-moving machinery-Operator's manual-

Content and format)

ISO 9244 Earth-moving machinery-Machine safety labels-
General principles)

ISO 10968 Earth-moving machinery-Operator's controls

ISO 12100 Mechanical Safety Design General Risk Assessment and Risk Reduction
(Safety of machinery-General

principles for design-Risk assessment and risk reduction)

ISO 20474-1:2008 Earthmoving machinery safety - Part 1. General requirements
(Earth-moving machinery-Safety-

Part 1. General requirements)

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

Quick connect device quick coupler

Installed on earthmoving machinery for quick replacement of attachments.

Note. Quick connect devices usually have different names, including "quick connect" and "connect bracket". In this standard, only the term "quick connection device" is used.

3.1.1

Power quick connect device powered quick coupler

At least one of the engagement and locking systems operates using a power-driven quick connect.

Example. Hydraulic system or motor.

3.1.2

Manual quick connect device manual quick coupler

The action of the engaging and locking system is a quick connect device that is driven by a human to act on the quick connect device.

3.1.3

Hybrid quick connect device mixedquickcoupler

The connection and locking of the quick connect device can be done in the driver's cab, but the release requires manual operation on the quick connect device.