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

GB/T 9139-2018

**Earth-moving machinery - Hydraulic excavators - Technical
specifications**

土方机械 液压挖掘机 技术条件

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces GB/T 9139-2008 "Technical Conditions for Hydraulic Excavators". This standard is compared with GB/T 9139-2008, except for editing The main technical changes outside the series are as follows:

- Add or remove normative references (see Chapter 2, Chapter 2 of the.2008 edition);
- Modified terms and definitions (see Chapter 3, Chapter 3 of the.2008 edition);
- Revised the form of the regulations (see 4.1,.2008 version 4.1);
- Revised the model specification (see 4.2,.2008 edition 4.2);
- Revised the main parameters (see 4.4,.2008 version 4.4);
- Revised the general requirements and performance requirements (see 5.1 and 5.2, the.2008 version of 5.1);
- Revised the requirements of the security requirements (see 5.3, 5.4 of the.2008 edition);
- Revised the requirements for environmental protection and comfort requirements (see 5.4, 5.3 of the.2008 edition);
- Revised the regulations for factory inspection and type inspection (see 7.1, 7.1 of.2008 edition);

1 Scope

China's national technical specification for hydraulic excavators. The hydraulic excavator is the central machine of construction and the largest category of earthmoving equipment made anywhere, and China both builds and uses more of them than any other country. Its specification is dominated by the hydraulics, because everything the machine does - the boom, the arm, the bucket, the swing and the travel - is done by a hydraulic circuit that must

share a limited pump flow between several simultaneous demands, and the intelligence of that sharing is what separates a good machine from a crude one. The other governing requirement is stability: an excavator works with its load out at maximum reach, often on a slope, and its permissible lift capacity at each radius is a safety limit rather than a performance claim. The standard specifies the terms and definitions, classification, requirements, test methods, inspection rules, marking, packaging, transport and storage, and applies to wheeled and crawler hydraulic excavators of operating weight up to 200000 kg as defined in GB/T 8498.

This standard specifies the terms and definitions, classification, requirements, test methods, inspection rules, marking, packaging, transportation and storage of hydraulic excavators. This standard is applicable to tire type and crawler type hydraulic excavators with the working quality not exceeding 200000kg as specified in GB/T 8498 (below Referred to as "excavator").

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. General rules and safety requirements for

GB/T 3766 hydraulic drive systems and their components

GB/T 6572 earthmoving machinery hydraulic excavator terminology and commercial specifications

GB/T 7586 earthmoving machinery hydraulic excavator test method

GB/T 8419-2007 Laboratory evaluation of the vibration of the driver's seat of earth-moving machinery

GB/T 8498 earthmoving machinery basic type identification, terminology and definition
Method for measuring the position of the center of gravity of

GB/T 8499 earthmoving machine

GB/T 8595 earthmoving machinery driver's operating device

GB/T 10913 earthmoving machine speed measurement

GB/T 13331 earthmoving machinery hydraulic excavator lifting weight

GB/T 13332 Earthmoving machinery hydraulic excavator and backhoe loader measuring method

GB/T 14039-2002 Hydraulic transmission oil solid particle pollution level code

GB 16710 earthmoving machinery noise limit

GB/T 16937 earth-moving machinery driver vision test method and performance criteria

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