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

GB/T 42608-2023

Portable chain-saws - Kickback test

便携式链锯 反弹试验

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Foreword

This document is in accordance with the provisions of GB/T 1:1-2020 "Guidelines for Standardization Work Part 1: Structure and Drafting Rules for Standardization Documents" drafting: This document is equivalent to ISO 9518:2018 "Rebound Test for Portable Chain Saws for Forestry Machinery": The following minimal editorial changes have been made to this document:

- a) In order to coordinate with the existing standard system, change the name of the document to "Portable Chainsaw Kickback Test";
- b) For ease of understanding, formula (3) and formula (4) have added the description of "9:8

--- gravitational constant, the unit is cattle per kilogram (N/kg)": Please note that some contents of this document may refer to patents: The issuing agency of this document assumes no responsibility for identifying patents: This document is proposed by the State Forestry and Grassland Administration: This document is under the jurisdiction of the National Forestry Machinery Standardization Technical Committee (SAC/TC61): This document was drafted by: Zhejiang Yate Electric Co., Ltd., Zhejiang Pioneer Technology Co., Ltd., Zhejiang Zhongma Garden Machinery Co., Ltd., Nanjing Chervon Technology Co., Ltd., Yongkang Maojin Garden Machinery Co., Ltd., Harbin Forestry of the State Forestry and Grassland Bureau Machinery Research Institute, Zhejiang Zhongjian Technology Co., Ltd., Zhejiang Sanfeng Industrial Co., Ltd., Zhejiang Huangjia Garden Tools Manufacturing Co., Ltd: Division, Rheinland Technology (Shanghai) Co., Ltd., Baoshide Technology (China) Co., Ltd., Hangzhou Wanwei Testing Technology Co., Ltd: The main drafters of this document: Ding Junfeng, Zhu Daoqing, Lai Youzheng, Gao Yang, Zou Yongfeng, Wang Zhendong, Yang Haiyue, Yang Feng, Tang Enchang, Dai Mingyu, Ding Yucai and Bai Yajun: Portable Chainsaw Kickback Test

1 Scope

GB/T 42608-2023 specifies the kickback test for portable chain saws. Kickback is the accident that defines the machine: when the upper quadrant of the guide bar nose touches wood, the chain drives the bar up and back towards the operator's face faster than anyone can react, and it is the mechanism behind most severe chainsaw injuries. The test measures the computed kickback angle produced by a defined contact, so that a saw, bar and chain combination can be rated rather than assumed safe. The standard sets the test method: the principle, the chain saw configuration including the saw family and the requirements on the guide bars and chains used, the determination of the kickback angle and the apparatus and materials for it, the preparation covering the measurement of the saw's physical parameters and dimensions and the setting up of the saw, chain and test equipment, and the test procedure, calculation and report. It took effect on 1 December 2023.

This document describes the determination of gasoline-powered and electrically powered (including battery-powered), with guide bars and saws. The method of rebounding energy of a chain saw (hereinafter referred to as "chain saw"): The test method of this document has been proved to be a method for evaluating and calculating the Accurate measurement method for the rebound angle and rebound energy of a chain saw powered by a gasoline engine with a displacement not exceeding 80cm³: this document Not suitable for evaluation of chainsaws with an engine displacement exceeding 80cm³: In addition, due to the limitation of the structure size of rebound equipment, this document is not applicable to Chainsaws that cut more than 63cm in length: The modification of the method for determining the rebound energy in this document is aimed at making the results more reproducible, based on the experimental results obtained by the previous method: result is still valid:

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text: Among them, dated references For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to this document:

GB/T 18960-2023 Portable Chainsaw Vocabulary (ISO 6531:2017, IDT)

Note: LY/T 2890-2017 Portable Chainsaw Chain Brake Performance Test Method (ISO 6535:2015, IDT)

3 Terms and Definitions

The terms and definitions defined in ISO 6531 and the following apply to this document: ISO and IEC maintain standardized terminology databases at:

---ISO online browsing platform: <https://www.iso.org/obp>; 3:

1 Guide bar head radius barnoseradius The continuous radius formed from the centerline of the bar to the front end of the bar within an angle of 35° above the centerline:

Note: See Figure 1: Figure

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