

ICS 65.060.80
CCS B 95



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

GB/T 46643-2025

**Portable chain-saws - Determination of balance and maximum
holding moment**

便携式链锯 平衡和最大握持力矩的测定

(English Translation)

Issued on: October 31, 2025

Implemented on: May 1, 2026

Issued by: State Administration for Market Regulation

Table of Contents

Foreword
1 Scope
2 Normative references
3 Terms and Definitions
4 Determination of equilibrium
4.1 Preparation
4.2 Longitudinal balance on the front handle of the forest chainsaw

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 adopts ISO 8334:2007 "Forestry machinery - Portable chainsaws - Determination of balance and maximum gripping torque".

The following minimal editorial changes have been made to this document.

---To align with existing standards, the standard title has been changed to "Determination of Balance and Maximum Grip Torque of Portable Chainsaws";

---For ease of use, Chapter 5 has been updated with "Note. The method for determining the center of gravity of a chainsaw refers to GB/T 42608-2023", and also includes...

References are provided.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the National Forestry and Grassland Administration.

This document is under the jurisdiction of the National Forestry Machinery Standardization Technical Committee (SAC/TC61).

1 Scope

This document describes the test methods for longitudinal and lateral balancing of a portable handheld chainsaw powered by an internal combustion engine.

This document also describes the test method for determining the maximum holding torque

of a pruning chainsaw.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

ulary)

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

3 Terms and Definitions

The terms and definitions defined in ISO 6531 apply to this document.

4.1.1 Chainsaw

The balance check should be performed on a new and clean chainsaw in normal production. Both the fuel tank and lubricating oil tank should be half full, and should be checked according to the following specifications.

Install the guide plate and corresponding saw chain. The guide plate should be secured in the highest tilt position.

The chainsaw should be tested in the following two configurations as specified in the user manual or according to the manufacturer's instructions.

- a) Install the shortest and lightest guide plate, without installing the insert teeth (if removable);
- b) Install the longest and heaviest guide plate, and install the insert teeth (if any).

The test report should record the length and mass of the guide plate used in the test.

4.1.2 Test Equipment

The suspension method should not affect the test results.

4.2 Longitudinal balance on the front handle of the forest chainsaw

Chainsaws conforming to 4.1 should be suspended at the front handle, ensuring the guide plate is vertical. The suspension support should be positioned to maximize [efforts/capacity].

Reduce the friction generated to allow the chainsaw to rotate. See Figure 1 for an example.

Measure and record the angle α between the center line of the guide plate and the horizontal plane.