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LY

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

LY/T 2890-2017

Replacing GB/T 19387-2012

Portable chain-saws--Chain brake performance

便携式油锯 锯链制动器性能测试方法

(English Translation)

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Foreword

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

This standard is a revision of GB/T 19387-2012 "Portable Chainsaw Chain Brake Performance Test Method" and GB/T 19387-the main technical changes in 2012 are as follows.

- Added a reference to "LY/T 1167-2014" in the "normative reference document" (see Chapter 2);
- Revised the definition of "braking time" in "terms and definitions" (see 3.1, 2012 edition 3.1);
- Modified the accuracy requirements of the timer (see 5.2, 2012 edition 5.2);
- Modified the requirements for impact pendulum (see 5.6, 2012 edition 5.6);
- Increased the preheating time of 3 minutes in the preparation of the chain saw before the test; modified the quality of the hanging weight when the saw chain was tensioned Quantity; increased the requirement of "applying a moderate hand force, the chain should be free to move on the guide" (see Chapter 6, 2012 edition 6) chapter);
- Increased the accuracy requirements for high speed idling speed (see Chapter 7);
- Revised the requirements of "release force (static test)" (see 7.1, 2012 edition 7.2);
- Modified the criteria for determining the brake chain being braked during the saw chain brake test (see 7.2.1, 2012 edition 3.1);
- Modified the test procedure for braking time (see 7.2, 2012 edition 7.1);
- Revised the record and calculation requirements for braking time in the "Test Report" (see 8.1, 2012 edition 8.1);
- "Test report" added the requirement to "record the type of saw chain lubricant used in

the test process" (see 8.3).

This standard uses the translation method equivalent to the international standard ISO 6535:2015 "portable chain saw chain brake performance test method".

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

---GB/T 18960-2012 Forestry machinery portable chainsaw vocabulary (ISO 6531:2008, IDT).

1 Scope

This standard specifies the test method for braking time and release force of manual chain brakes on portable chainsaws.

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.

LY/T 1167-2014 Forestry machinery portable chain saw front hand guard size and clearance (ISO 6533:2012, IDT) ISO 6531 Forestry Machinery Portable Chainsaw Vocabulary (Machineryforforestry-Portablechain-saws-Vocabulary)

3 Terms and definitions

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

Braking time from the moment the impact pendulum hits the front hand guard to the time interval when the saw chain is considered to have stopped.

4 Test objects

The test shall be carried out on three new chain saws of the same type. The test chain saw shall be equipped with the guides and chains and maximum diameter recommended by the manufacturer.

Drive sprocket.

5 Test equipment

5.1

Tachometer with an accuracy of $\pm 2.5\%$ of the indicated value.

5.2

Timer, including sensor, with an accuracy of $\pm 2.5\text{ms}$.

5.3

Record the sensing device for the brake start.

5.4

Sensing device for recording the movement of the saw chain.

5.5

dynamometer with an accuracy of $\pm 1\text{N}$.

5.6

Impact pendulum, the impact surface of the impact pendulum is a plane with a diameter of $50\text{mm} \pm 1\text{mm}$, and the length of the swing arm refers to the center of rotation from the swing arm to the impact the distance between the center line of the pendulum is $700\text{mm} \pm 5\text{mm}$. The swing arm should be as light as possible, and the impact pendulum should be from $200\text{mm} \pm 5\text{mm}$.

When the difference (see Figure 1) falls, it should produce an impact energy of $1.4\text{J} \pm 0.2\text{J}$. The sharp edge of the impact pendulum should be chamfered.