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LY

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

LY/T 1199-1996

Replacing LY/T 1199-1996

**Forestry machinery. Protable chain-saws. Test methods
(English Translation)**

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Foreword

This standard replaces LY/T 1199-1996 "Testing methods for chainsaw benches" from the date of implementation.

This standard is a revision of LY/T 1199-1996.

The main changes, additions and deletions of this standard are as follows.

- Modified the standard Chinese and English names;
- Amend some of the provisions of the "test method" to remove the conclusive judgment of the test results;
- Increase the clutch engagement speed test;
- Removed the assessment of the durability test results;
- Some sections have been merged and adjusted.

Appendix A, Appendix B, Appendix C, and Appendix D of this standard are normative appendices.

This standard is proposed and managed by the National Forestry Machinery Standardization Technical Committee.

This standard was drafted. Harbin Forestry Machinery Research Institute of the State Forestry Administration, Liuzhou Solo Small Power Plant.

1 Scope

This standard specifies the performance test and durability test of the chain saw and its engine on the test bench or under the conditions of the approximate laboratory.

method.

This standard applies to all types of portable chain saws.

2 Normative references

The terms in the following documents become the terms of this standard by reference to this standard. All dated references, followed by all Modifications (not including errata content) or revisions do not apply to this standard, however, parties to agreements based on this standard are encouraged to study if it is possible to use the latest version of these files? For undated references, the latest edition applies to this standard.

GB/T 1105 internal combustion engine bench performance test method GB/T 5392 forestry machinery chain saw technical conditions JB/T 5135.1 General Small Gasoline Engine Bench Performance Test Method

3.1 Test standard environmental conditions

According to the provisions of GB/T 1105, the standard environmental conditions are.

Relative humidity. $0 \sim 30\%$;

Ambient temperature. $T_0 = 298K$ ($25^\circ C$)

3.2 The necessary chain saw technical documents should be available before the test.

3.3 Test samples before the test shall be run-in, adjusted and preliminary tested in accordance with the manufacturer's specifications. Preparation for various types of tests can be different, the preparation of the factory test can be simplified.

3.4 The chain saw must be fitted with all accessories (air filter, muffler, cooling fan, etc.) during the test. When performing a), b), c), d) of 5.1 Guide plates and saw chains should also be added during each test.

3.5 During the test, the oil saw's own cooling system must be used and no external cooling must be added.

3.6 In the external characteristic test and durability test, the exhaust pipe can be used instead of the muffler, but the resistance of the exhaust pipe should be equivalent to that of the muffler.

3.7 When testing, the fuel oil, lubricating oil and mixing ratio used by the chain saw shall comply with the provisions of the instruction manual.

3.8 Test instruments and equipment shall be tested and qualified according to the regulations. Check or calibrate the instrument and equipment before testing.

3.9 Test environment temperature $-40^{\circ}\text{C} \sim 40^{\circ}\text{C}$.

4.1 Power calibration

4.1.1

The rated power of the chain saw engine is the maximum effective power of the engine when the throttle is fully open, in kilowatts.

4.1.2

At the same time as the calibration power is given, the corresponding calibration speed should be given.

4.1.3

The effective power measured in a non-standard environment shall be corrected for the effective power as specified in JB/T 5135.1.

4.2 Calibration of fuel consumption rate

4.2.1

The minimum fuel consumption rate of the chain saw engine is calibrated to the lowest value of the external characteristic fuel consumption rate curve.