

ICS 65.060.80
CCS B 96

LY

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

LY 1691-2014

Replacing LY/T 1691-2007

Machinery for forestry. General safety requirements

林业机械 通用安全要求

(English Translation)

Issued on: August 21, 2014

Implemented on: December 1, 2014

Issued by: State Forestry Administration

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Foreword

Chapters 4 and 5 of this standard are mandatory and the rest are recommended.

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

This standard replaces LY 1691-2007 "Safety Requirements for Self-propelled Machinery for Forestry Machinery". Compared with LY 1691-2007, mainly the technical changes are as follows.

--- Revised the name of the standard, from the original "forestry machinery self-propelled mechanical safety requirements" to "forestry machinery general safety Claim";

---Modified the contents of "Scope";

---Modified the contents of the "normative reference document" (see Chapter 2, Chapter 2 of the 2007 edition);

--- Amend Chapter 4 "Safety Requirements" to "Safety Requirements and/or Protective Measures" and add corresponding inspections after each request Method of inspection (see Chapter 4, Chapter 4 of the 2007 edition);

--- Added the content of "General Provisions" (see 4.1);

--- Revised the requirements of the "FOPS" (see 4.3.2.1, 4.2.2.1 of the 2007 edition);

--- Changed "Operator Protection Structure (OPS)" to "Operator Protection Structure (OPS)", adding "all machines with circular saw heads installed" the protection of the "machines for all saw chain cutting systems" and the "machines with front winches or rear winches" Seeking (see 4.3.2.3, 2007 edition 4.2.2.3);

--- Revised the width requirement of the "wood supporter front guard" (see 4.3.2.4, 2007 edition 4.2.2.5);

---Modified the requirements of the "operating environment" (see 4.3.2.6, 4.2.4 of the 2007 edition);

--- Removed the requirement for the product logo on the "seat belt" (see 4.3.4, 2007. 4.2.2.4);

- Change the "alarm" to "alarm device" and modify its contents to "the machine should be installed according to ISO 9533 and controlled by the operator." Alarm horn and reversing alarm. (see 4.5.4, see version 4.5 of the 2007 edition);
- Added requirements and test methods for "safety and reliability of electronic control systems" and "unloading in emergency situations" (see 4.5.5, 4.5.6);
- Modified the requirements of the "brake system" for the "brake system brake system" (see 4.8, 2007 version 4.9);
- Revised the requirements for "stability" (see 4.11, 4.13 of the 2007 edition);
- Increased the requirements and test methods for "noise" and "vibration" (see 4.15, 4.16);
- Modified the contents of the "Operation Manual" (see 5.1, 5.1 of the 2007 edition);
- Modified the contents of the "flag" (see 5.2, 5.2 of the 2007 edition);
- Amend the "Warning" to "Safety Sign" and modify the requirements of its illustration, and the requirements for the installation and durability of the "Safety Sign" (See 5.3, 5.3 of the 2007 edition);
- Added "Appendix A (informative) serious hazard list" (see Appendix A);
- Added the content of "References".

This standard uses the translation method equivalent to the international standard ISO 11850:2011 "General Safety Requirements for Forestry Machinery".

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

- GB/T 3766-2001 General technical conditions for hydraulic systems (eqvISO 4413.1998);
- GB/T 4269.1-2000 Agriculture and forestry tractors and machinery, lawn and garden power machinery operators operating mechanisms and other Symbols for display devices - Part 1. General symbols (ISO 3767-1:1991, IDT);
- GB/T 4269.4-2014 Agriculture and forestry tractors and machinery, lawn and garden power machinery operators operating mechanisms and other Symbols for display devices - Part 4. Symbols for forestry machinery (ISO 3767-4:1993, IDT);
- GB/T 8593.1-2010 Earth-moving machinery driver operating devices and other display devices with symbols - Part 1. General LY 1691-2014/ISO 11850:2011 no. (ISO 6405-1:2004, IDT);
- GB/T 9480-2001 Agriculture and forestry tractors and machinery, lawn and garden power machinery manuals written rules (eqv ISO 3600:1996);

Mechanical vibration and shock -- Evaluation of human exposure to whole body vibration --

Part 1 . General requirements (ISO 2631-1:1997, IDT);

--- GB/T 13877.2-2003 Agricultural and forestry tractors and self-propelled mechanically closed cabs - Part 2. Heating, ventilation and air conditioning System test methods and performance requirements (ISO 14269-2:1997, IDT);

---GB/T 14781-1993 Steering capacity of earth-moving wheeled machinery (eqvISO 5010.1992);

--- GB/T 14790.2-2014 Mechanical vibrations - Measurement and evaluation of human exposure to hand-transmitted vibrations - Part 2 Practical Guide to Measurement (ISO 5349-2:2001, IDT);

--- GB/T 16855.1-2008 Safety of mechanical safety systems - Part 1 . General rules of design (ISO 13849-1:2006, IDT);

---GB/T 17299-1998 The minimum inlet size of earthmoving machinery (idtISO 2860.1992);

---GB/T 17920-1999 earthmoving machinery lifting arm support device (idtISO 10533.1993);

---GB/T 17921-2010 Earth-moving machinery seat belts and their fixtures performance requirements and tests (ISO 6683:2005, MOD);

---GB/T 19364-2003 Vocabulary, performance test methods and technical conditions for wheeled special forestry machinery brake systems (ISO 11169:1993, IDT);

---GB/T 19365-2012 Forestry machinery mobile and self-propelled forestry machinery terms, definitions and classifications (ISO 6814.

2009, IDT);

--- GB/T.19933.4-2005 Earthmoving machinery cab environment Part 4. Cabin air conditioning, heating and/or ventilation Test method (ISO 10263-4.:1994, MOD);

--- GB/T 20448.1-2012 Self-propelled forestry machinery rollover protection structure laboratory test and performance requirements - Part 1.

General Machinery (ISO 8082-1:2009, IDT);

---GB/T 20459-2006 Performance requirements for tracked special mechanical brake systems for forestry machinery (ISO 11512:1995, IDT);

--- GB/T 20953-2007 Determination of the burning characteristics of agricultural and forestry tractors and machinery cabs (ISO 3795:1989, MOD);

---GB/T 21152-2007 Earthquake machinery tire type machine brake system performance requirements and test methods (ISO 3450.

1996, IDT);

---GB/T 21155-2007 Earthmoving machinery forward and reverse audible alarm sound test method (ISO 9533:1989, IDT);

---GB/T 21398-2008 Agricultural and forestry machinery electromagnetic compatibility test methods and acceptance rules (ISO 14982:1998, IDT);

---GB/T 21935-2008 Comfortable area and accessibility of earthmoving machinery (ISO 6682:1986, IDT);

---GB/T 21936-2008 Performance requirements for towing devices installed on machines (ISO 10532:1995, IDT);

---GB/T 22355-2008 Earth-moving machinery articulated frame locking device performance requirements (ISO 10570:2004, IDT);

---GB/T 22359-2008 Earthmoving machinery electromagnetic compatibility (ISO 13766:2006, IDT);

---GB/T 25607-2010 Earth-moving machinery protection device definition and requirements (ISO 3457:2003, IDT);

---GB/T 25622-2010 Earthmoving Machinery Driver Manual Content and Format (ISO 6750:2005, IDT);

---GB/T 25624-2010 earth-moving machinery driver seat size and requirements (ISO 11112:1995, IDT);

---LY/T 2237-2013 Glass and partition materials for blocking throwing serrations used in forest machinery cab guards LY 1691-2014/ISO 11850:2011 Test methods and performance requirements (ISO 11839:2010, IDT).

This standard is proposed and managed by the National Forestry Machinery Standardization Technical Committee (SAC/TC61).

1 Scope

This standard specifies the safety requirements for self-propelled forestry machinery and assembly into forestry machinery according to operational requirements. This standard includes forestry machinery at General serious hazards, and events that the manufacturer can reasonably foresee during normal use or misuse, as specified in ISO 6814 Wood machine, buncher, tumbler, forwarder, timber loader, skidder, joint work machine, combined feller and crusher, and the above machine A multi-functional joint working machine that combines types.

This standard does not address hazards to individual machines, such as hazards associated with specific accessories. Therefore, the use of this standard alone is not enough to cover all serious hazards of most machines covered by this standard.