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

GB/T 18490.2-2017

**Safety of machinery -- Laser processing machines -- Part 2:
Safety requirements for hand-held laser processing devices
(English Translation)**

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Table of Contents

Foreword	
Introduction	
1 Scope	
2 Normative references	
3 Terms and definitions	
4 Hazards	
4.1 Inherent hazards	
4.2 External influences (interference) caused by the harm	
4.3 Handheld laser processing machine with the use of the other hazards	
4.3.1 Restricted room	
4.3.2 Aerial work	
4.3.3 Environmental Impact	
5 Safety requirements and measures	
5.1 General requirements	
5.2 Risk Assessment	
5.3 The implementation of corrective measures	
5.3.1 General requirements	
5.3.2 Laser radiation hazard protection	
5.4 Design Requirements	
5.4.1 Design	
5.4.2 Protective enclosure	
5.4.3 Authorize the control device	
5.4.4 Radiation Warning Device	
5.4.5 Calibration Laser	
5.4.6 Scanning laser safety device	
5.4.7 Emergency stop control	
5.4.8 Control method and control circuit	
5.4.9 Laser beam isolation	
5.4.10 Hazard Protection of Materials and Substances	
6 Verification of safety requirements and measures	
6.1 General Compliance	
6.2 Control Level Classification	

6.3 Laser Classification

7 To the user's information

7.1 Other requirements

7.2 Recommended content

8 Logo

Appendix A (Informative) Handheld laser processing machine type

Appendix B (Informative) Risk Assessment Example

References

Foreword

GB/T 18490 "mechanical safety laser processing machine" is divided into the following three parts.

--- Part 1. General safety requirements;

--- Part 2. Handheld laser machine safety requirements;

--- Part 3. Noise reduction and noise measurement methods for laser and hand-held processing machines and related ancillary equipment (accuracy level 2).

This section GB/T 18490 Part 2.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This section uses the redrafted Law Amendment uses ISO 11553-2:2007 "Machine Safety Laser Processing Machine Part 2. Hand-held excitement Light processing machine safety requirements. " this section compared with ISO 11553-2:2007, the main technical differences and the reasons are as follows.

--- On normative references, made in this section with technical differences in the adjustment to adapt to China's technical conditions, the adjustment of the situation Concentration reaction in Chapter 2 "Normative references", the specific adjustments are as follows.

- Replacing the reference document ISO 3864-1 in the original International Standard with revision GB/T 2893.1-2013 of the International Standard.

2002 (see Chapter 8);

- Replaced by ISO 3864-2, the original international standard, with revision GB/T 2893.2-2008 of International Standard.

2004 (see Chapter 8);

- Replaced the reference document ISO 3864-3 in the original International Standard with

GB/T 2893.3-2010 modified to adopt the international standard.

2006 (see Chapter 8);

- Use the same international standard GB 7247.1-2012 instead of the original international standard reference document IEC 60825-1.

2001 (see 5.3.2.1, 5.4.8.5, 6.1, 6.3, 7.1, 7.2, Chapter 8);

- Use the same international standard GB/T 7247.4-2016 instead of the original international standard reference document IEC 60825-4.

2011 (see Chapter 3);

- Replacing ISO 11145 cited in former International Standard with GB/T 15313-2008 modified to adopt international standard.

2006 (see Chapter 3);

- Equivalent with the international standard ISO 12100:2010 GB/T 15706-2012 instead of the original international standard references ISO 12100-1:2003 and ISO 12100-2:2003 (see Chapter 3, 5.1, 5.3.2.1, 7.1, Chapter 8);

- Use the equivalent of the international standard GB/T 16754-2008 instead of the original international standard reference document ISO 13850.

1996 (see 5.4.7);

- Equivalent to the international standard GB/T 16855.1-2008 instead of the original international standard reference document ISO 13849-1:1999 (see 5.4.8.1, 5.4.8.2, 6.2);

- Replacing the reference document ISO 11553-1 in the original International Standard with GB/T 18490.1-2017 modified to adopt international standards.

2005 (see Chapter 3, 5.4.10);

- Replaced the reference document ISO 14119 in the original International Standard with GB/T 18831-2010 modified to adopt international standard.

1998 (see 5.4.8.5, table B.5);

- Replaced ISO 14118 in the original International Standard with GB/T 19670-2005 modified to adopt international standard.

2000 (see 5.4.7);

- ISO 11252:2013 replaced by the original international standard reference document ISO 11252:2004.

This section made the following editorial changes.

--- Deleted ISO 11553-2:2007 Chapter 1 "Laser processing machine definition see ISO

11553-1";

--- ISO 11553-2:2007 Chapter 1, "Noise-related requirements are not included in the standard, these requirements will be included in the future repair Revised version of the "statement amended to." This section does not include noise-related requirements, the requirements see GB/T 18490.3-2017. ";

--- Deleted "ISO 11553-2.20075.3.2.2" as defined in IEC/T R60825-14 nominal hazardous area (NHA) " Statement

--- In accordance with the appendix appearing in the body of the order, the exchange of the original International Standards Appendix A and Appendix B.

Please note that some of this document may be patentable. The issuing agencies of this document do not bear the responsibility of identifying these patents.

This part is proposed by China Machinery Industry Federation.

This part of the National Optical and Photonics Standardization Technical Committee (SAC/TC103) centralized.

This section is drafted unit. Southwest Institute of Technical Physics, China Ordnance Industry Standardization Institute, Han's Laser Technology Industry Group Co., Ltd.

Limited, Beijing Institute of Optoelectronics Technology.

Introduction

This section belongs to GB/T 15706-2012 Class C standards.

The types of machine hazards, the hazards and events, and the extent of their involvement are covered in this section. In accordance with the C standard , If the clauses of the C standard differ from the clauses of other A or B standards, the clauses of the C standard Payments take precedence over other standard terms.

This section applies to the use of laser processing materials machine. The purpose of this section is to avoid personal injury, take the following measures.

Lists the potential hazards posed by the machine that contains the laser;

--- Prescribe measures to reduce the risk caused by certain hazardous conditions and verification methods;

--- provide reference to the relevant standards;

--- To provide users with detailed information, so that users establish the appropriate procedures and preventive measures.

Mechanical safety laser processing machine Part 2. Handheld laser machine safety requirements