

STN	Lesnícke stroje Bezpečnostné požiadavky a skúšanie prenosných motorových odvetvovacích píl (ISO 11680: 2025)	STN EN ISO 11680
		47 9022

Machinery for forestry - Safety requirements and testing for portable pole mounted powered pruners (ISO 11680:2025)

Táto norma obsahuje anglickú verziu európskej normy.
This standard includes the English version of the European Standard.

Táto norma bola oznámená vo Vestníku ÚNMS SR č. 01/26

Obsahuje: EN ISO 11680:2025, ISO 11680:2025

Oznámením tejto normy sa ruší
STN EN ISO 11680-1 (47 9022) z februára 2022

STN EN ISO 11680-2 (47 9022) z februára 2022

141933

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 11680

September 2025

ICS 65.060.80

Supersedes EN ISO 11680-1:2021, EN ISO 11680-2:2021

English Version

Machinery for forestry - Safety requirements and testing
for portable pole mounted powered pruners (ISO
11680:2025)

Matériel forestier - Exigences de sécurité et essais pour
les perches élagueuses à moteur (ISO 11680:2025)

Forstmaschinen - Sicherheitstechnische
Anforderungen und Prüfung für motorbetriebene
Hochentaster (ISO 11680:2025)

This European Standard was approved by CEN on 6 June 2025.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Contents

	Page
European foreword.....	3
Annex ZA (informative) Relationship between this European Standard and the essential requirements of Directive 2006/42/EC aimed to be covered	4

European foreword

This document (EN ISO 11680:2025) has been prepared by Technical Committee ISO/TC 23 "Tractors and machinery for agriculture and forestry" in collaboration with Technical Committee CEN/TC 144 "Tractors and machinery for agriculture and forestry" the secretariat of which is held by AFNOR.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by March 2026, and conflicting national standards shall be withdrawn at the latest by March 2026.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CEN shall not be held responsible for identifying any or all such patent rights.

This document supersedes EN ISO 11680-1:2021 and EN ISO 11680-2:2021.

This document has been prepared under a standardization request addressed to CEN by the European Commission. The Standing Committee of the EFTA States subsequently approves these requests for its Member States.

For the relationship with EU Legislation, see informative Annex ZA, which is an integral part of this document.

Any feedback and questions on this document should be directed to the users' national standards body/national committee. A complete listing of these bodies can be found on the CEN website.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Türkiye and the United Kingdom.

Endorsement notice

The text of ISO 11680:2025 has been approved by CEN as EN ISO 11680:2025 without any modification.

Annex ZA

(informative)

Relationship between this European Standard and the essential requirements of Directive 2006/42/EC aimed to be covered

This European Standard has been prepared under a Commission's standardization request "M/396 Mandate to CEN and CENELEC for standardisation in the field of machinery" to provide one voluntary means of conforming to essential requirements of the Directive 2006/42/EC of the European Parliament and of the Council of 17 May 2006 on machinery, and amending Directive 95/16/EC (recast).

Once this standard is cited in the Official Journal of the European Union under that Directive, compliance with the normative clauses of this standard given in Table ZA.1 confers, within the limits of the scope of this standard, a presumption of conformity with the corresponding essential requirements of that Directive, and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard and Annex I of Directive 2006/42/EC

The relevant Essential Requirements of Directive 2006/42/EC	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
1. ESSENTIAL HEALTH AND SAFETY REQUIREMENTS		
1.1.2. Principles of safety integration	<u>4; 5</u>	
1.1.3. Materials and products	<u>4.12</u>	
1.1.5. Design of machinery to facilitate its handling	<u>4.3; 4.4</u>	
1.1.6. Ergonomics	<u>4.3; 4.4</u>	
1.1.7. Operating positions	<u>4.15; 5.1; 5.2</u>	
1.2. CONTROL SYSTEMS		
1.2.1. Safety and reliability of control systems	<u>4.8; 4.9; 4.10; 4.11</u>	
1.2.2. Control devices	<u>4.8; 4.9; 4.10; 5.2</u>	
1.2.3. Starting	<u>4.8; 4.10</u>	
1.2.4. Stopping		
1.2.4.1. Normal stop	<u>4.9</u>	
1.3. PROTECTION AGAINST		

The relevant Essential Requirements of Directive 2006/42/EC	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
MECHANICAL HAZARDS		
1.3.1. Risk of loss of stability	-	not covered
1.3.2. Risk of break-up during operation	<u>4.5; 4.19; 4.20; 4.21; 5.1</u>	
1.3.3. Risks due to falling or ejected objects	-	not covered
1.3.4. Risks due to surfaces, edges or angles	<u>4.6</u>	
1.3.6. Risks related to variations in operating conditions	<u>4.10</u>	
1.3.7. Risks related to moving parts	<u>4.2; 4.7; 4.11</u>	
1.3.8. Choice of protection against risks arising from moving parts		
1.3.8.1. Moving transmission parts	<u>4.2</u>	
1.3.9. Risks of uncontrolled movements	<u>4.10; 4.11</u>	
1.4. REQUIRED CHARACTERISTICS OF GUARDS AND PROTECTIVE DEVICES		
1.4.2.1. Fixed guards	-	not covered
1.4.2.2. Interlocking movable guards	-	not covered
1.4.2.3. Adjustable guards restricting access	-	not covered
1.4.3. Special requirements for protective devices	<u>4.7; 4.10.2.1; 4.11</u>	
1.5. RISKS DUE TO OTHER HAZARDS		
1.5.2. Static electricity	-	not covered
1.5.3. Energy supply other than electricity	<u>4.12; 4.19; 4.20; 4.21</u>	
1.5.4. Errors of fitting	<u>4.12.1</u>	
1.5.5. Extreme temperatures	<u>4.14</u>	

EN ISO 11680:2025 (E)

The relevant Essential Requirements of Directive 2006/42/EC	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
1.5.6. Fire	<u>4.12; 4.19; 4.20; 4.21; 5.1</u>	
1.5.8. Noise	<u>4.17; 5.1.2</u>	
1.5.9. Vibrations		not covered
1.5.11. External radiation	<u>4.18</u>	
1.5.13. Emissions of hazardous materials and substances	<u>4.12; 4.15; 4.21</u>	
1.5.15. Risk of slipping, tripping or falling	-	not covered
1.6. MAINTENANCE		
1.6.1. Machinery maintenance	<u>4.5.1; 4.14; 5.1</u>	
1.6.2. Access to operating positions and servicing points	-	not covered
1.6.3. Isolation of energy sources	<u>4.9</u>	
1.6.5. Cleaning of internal parts	-	not covered
1.7. INFORMATION		
1.7.1. Information and warnings on the machinery	<u>5.2</u>	
1.7.1.1. Information and information devices	<u>5.2</u>	
1.7.1.2. Warning devices	-	not covered
1.7.2. Warning of residual risks	<u>5.1; 5.2</u>	
1.7.3. Marking of machinery	<u>5.2</u>	
1.7.4. Instructions	<u>5.1</u>	
1.7.4.1. General principles for the drafting of instructions	<u>5.1</u>	
1.7.4.2. Contents of the instructions	<u>5.1</u>	
2. SUPPLEMENTARY ESSENTIAL HEALTH AND SAFETY REQUIREMENTS FOR CERTAIN CATEGORIES OF MACHINERY		
2.2. PORTABLE HAND-HELD AND/OR HAND-GUIDED MACHINERY		
2.2.1. General	<u>4.3; 4.9; 4.10; 4.11</u>	

The relevant Essential Requirements of Directive 2006/42/EC	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
2.2.1.1. Instructions	<u>5.1</u>	

WARNING 1 Presumption of conformity stays valid only as long as a reference to this European Standard is maintained in the list published in the Official Journal of the European Union. Users of this standard should consult frequently the latest list published in the Official Journal of the European Union.

WARNING 2 Other Union legislation may be applicable to the product(s) falling within the scope of this standard.



International Standard

ISO 11680

Machinery for forestry — Safety requirements and testing for portable pole mounted powered pruners

Matériel forestier — Exigences de sécurité et essais pour les perches élagueuses à moteur

**First edition
2025-06**

**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2025

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office
CP 401 • Ch. de Blandonnet 8
CH-1214 Vernier, Geneva
Phone: +41 22 749 01 11
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

Page

Foreword	v
Introduction	vi
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Safety requirements and/or protective measures	4
4.1 General	4
4.2 Protection against contact with power driven components	4
4.2.1 Requirements	4
4.2.2 Verification	4
4.3 Handles and hand grip	5
4.3.1 Requirements for handles	5
4.3.2 Requirements for hand grip for machines with a backpack power unit	5
4.3.3 Verification	5
4.4 Harness	5
4.4.1 Requirements	5
4.4.2 Verification	6
4.5 Cutting attachment	7
4.5.1 Saw-chain cutting attachment	7
4.5.2 Circular saw blade cutting attachment	7
4.5.3 Cutting attachment strength	8
4.6 Cutting attachment cover	10
4.6.1 Requirements	10
4.6.2 Verification	10
4.7 Distance to cutting attachment	10
4.7.1 Requirements	10
4.7.2 Verification	11
4.8 Engine starting device	11
4.8.1 Requirements	11
4.8.2 Verification	11
4.9 Engine stopping device	11
4.9.1 Requirements	11
4.9.2 Verification	12
4.10 Throttle control	12
4.10.1 Throttle trigger	12
4.10.2 Operation	12
4.10.3 Throttle control latch	13
4.11 Clutch	13
4.11.1 Requirements	13
4.11.2 Verification	13
4.12 Tanks	14
4.12.1 Requirements	14
4.12.2 Verification	14
4.13 Protection against contact with parts of the machine under high voltage	14
4.13.1 Requirements	14
4.13.2 Verification	14
4.14 Protection against contact with hot parts	14
4.14.1 Requirements	14
4.14.2 Verification	15
4.15 Exhaust gases	15
4.15.1 Requirements	15
4.15.2 Verification	16
4.16 Vibration	16
4.16.1 Reduction by design at source and by protective measures	16

ISO 11680:2025(en)

4.16.2	Vibration measurement	16
4.17	Noise	16
4.17.1	Reduction by design at source and protective measures	16
4.17.2	Noise measurement	16
4.18	Electromagnetic immunity	16
4.18.1	Requirements	16
4.18.2	Verification	16
4.19	Fuel feed line strength and accessibility	17
4.19.1	Requirements	17
4.19.2	Verification	17
4.20	Fuel tank structural integrity	17
4.20.1	Requirements	17
4.20.2	Verification	17
4.21	Hydraulic and pneumatic pipes and hoses for machines with a backpack power unit	17
4.21.1	Requirements	17
4.21.2	Verification	18
5	Information for use	18
5.1	Instructions	18
5.1.1	General	18
5.1.2	Technical data	18
5.1.3	Other information	18
5.2	Markings and warnings	20
5.2.1	General requirements	20
5.2.2	Marking requirements	21
5.2.3	Warning requirements	22
5.3	Test of labels	22
5.3.1	Preparation of test specimens and control specimens	22
5.3.2	Wipe resistance test	22
5.3.3	Adhesion test	23
Annex A (informative) List of significant hazards	24	
Annex B (normative) Procedures for the evaluation of the strength and accessibility of fuel feed lines	26	
Annex C (normative) Verification of protection against contact with hot parts	27	
Bibliography	29	

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO document should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

ISO draws attention to the possibility that the implementation of this document may involve the use of (a) patent(s). ISO takes no position concerning the evidence, validity or applicability of any claimed patent rights in respect thereof. As of the date of publication of this document, ISO had not received notice of (a) patent(s) which may be required to implement this document. However, implementers are cautioned that this may not represent the latest information, which may be obtained from the patent database available at www.iso.org/patents. ISO shall not be held responsible for identifying any or all such patent rights.

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT), see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 17, *Manually portable (hand-held) powered lawn and garden equipment and forest machinery*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 144, *Tractors and machinery for agriculture and forestry*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This first edition of ISO 11680 cancels and replaces ISO 11680-1:2021 and ISO 11680-2:2021, which have been technically revised.

The main changes are as follows:

- the requirements have been combined into a single standard;
- in [4.3.1](#):
 - the handle's minimal gripping length requirements (from 65 mm to 63 mm) has been revised to harmonize with IEC standards;
 - a 25 mm dimensional requirement around the gripping length has been added;
- in [4.5.3](#) and [Figure 6](#), a new requirement for cutting attachment strength test set-up for machines with a backpack has been added;
- in [4.7.1](#) and [Figure 7](#), the distance to cutting attachments measurements has been clarified;
- in [4.10.2.2](#), a maximum throttle linkage actuation test force ("200 N") has been added;
- the minimum number of tests ("at least one") and determination of test directions ("good engineering judgement") for fuel feed lines strength and accessibility testings have been clarified;
- in [Annex B](#), the 200 mm of the test probe is the free length after mounting.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This document is a type-C standard as stated in ISO 12100:2010.

This document is of relevance, in particular, for the following stakeholder groups representing the market players with regard to machinery safety:

- machine manufacturers (small, medium and large enterprises);
- health and safety bodies (regulators, accident prevention organisations, market surveillance, etc.).

Others can be affected by the level of machinery safety achieved with the means of the document by the above-mentioned stakeholder groups:

- machine users/employers (small, medium and large enterprises);
- machine users/employees (e.g. trade unions, organizations for people with special needs);
- service providers, e. g. for maintenance (small, medium and large enterprises);
- consumers (in case of machinery intended for use by consumers).

The above-mentioned stakeholder groups have been given the possibility to participate at the drafting process of this document.

The machinery concerned and the extent to which hazards, hazardous situations or hazardous events are covered are indicated in the scope of this document.

When requirements of this type-C standard are different from those which are stated in type A or type B standards, the requirements of this type-C standard take precedence over the requirements of the other standards for machines that have been designed and built according to the requirements of this type C standard.

Machinery for forestry — Safety requirements and testing for portable pole mounted powered pruners

1 Scope

This document specifies safety requirements, and measures for their verification, for the design and construction of portable pole-mounted powered pruners with internal combustion engine power sources (hereafter named "machine"), including extendable and telescopic machines. These machines use a power transmission shaft to transmit power to a cutting attachment consisting of a saw-chain and guide bar, a reciprocating saw blade or a single-piece circular saw blade with a 205 mm maximum outside diameter.

This document deals with significant hazards relevant to these machines when they are used as intended. This document does not address electrical shock from contact with overhead electric lines apart from warnings and instruction manual requirements, or whole-body vibration from back power units.

NOTE 1 See [Annex A](#) for a list of significant hazards.

This document is applicable to machines manufactured after its date of publication.

Brush cutters with a circular saw blade are not included in the scope of this document.

NOTE 2 Brush cutter requirements are outlined in ISO 11806-1 and ISO 11806-2.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 4413:2010, *Hydraulic fluid power — General rules and safety requirements for systems and their components*

ISO 4414:2010, *Pneumatic fluid power — General rules and safety requirements for systems and their components*

ISO 6531:2024, *Machinery for forestry — Portable chain-saws — Vocabulary*

ISO 7112:2018, *Machinery for forestry — Portable brush-cutters and grass-trimmers — Vocabulary*

ISO 7113:1999, *Portable hand-held forestry machines — Cutting attachments for brush cutters — Single-piece metal blades*

ISO 12100:2010, *Safety of machinery — General principles for design — Risk assessment and risk reduction*

ISO 13857:2019, *Safety of machinery — Safety distances to prevent hazard zones being reached by upper and lower limbs*

ISO 14982:1998, *Agricultural and forestry machinery — Electromagnetic compatibility — Test methods and acceptance criteria*

ISO 22867:2021, *Forestry and gardening machinery — Vibration test code for portable hand-held machines with internal combustion engine — Vibration at the handles*

ISO 22868:2021, *Forestry and gardening machinery — Noise test code for portable hand-held machines with internal combustion engine — Engineering method (Grade 2 accuracy)*

IEC 61032:1997, *Protection of persons and equipment by enclosures — Probes for verification*