

SLOVENSKI STANDARD

SIST EN ISO 11680-1:2022

01-januar-2022

Nadomešča:

SIST EN ISO 11680-1:2012

Gozdarski stroji - Zahteve za varnost in preskušanje motornih žag za obvejevanje z drogom - 1. del: Stroji z integriranim motorjem z notranjim zgorevanjem (ISO 11680-1:2021)

Machinery for forestry - Safety requirements and testing for pole-mounted powered pruners - Part 1: Machines fitted with an integral combustion engine (ISO 11680-1:2021)

Forstmaschinen - Sicherheitstechnische Anforderungen und Prüfung für motorbetriebene Hochentaster - Teil 1: Maschinen mit Antrieb durch integrierten Verbrennungsmotor (ISO 11680-1:2021)

Matériel forestier - Exigences de sécurité et essais pour les perches élagueuses à moteur - Partie 1: Machines équipées d'un moteur à combustion interne intégré (ISO 11680-1:2021)

Ta slovenski standard je istoveten z: EN ISO 11680-1:2021

ICS:

65.060.80 Gozdarska oprema Forestry equipment

SIST EN ISO 11680-1:2022

en,fr,de

iTeh STANDARD PREVIEW
(standards.iteh.ai)

SIST EN ISO 11680-1:2022

<https://standards.iteh.ai/catalog/standards/sist/86e39b5e-2a27-455f-86c9-c08395bec6d2/sist-en-iso-11680-1-2022>

EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN ISO 11680-1

November 2021

ICS 65.060.80; C

Supersedes EN ISO 11680-1:2011

English Version

**Machinery for forestry - Safety requirements and testing
for pole-mounted powered pruners - Part 1: Machines
fitted with an integral combustion engine (ISO 11680-
1:2021)**

Matériel forestier - Exigences de sécurité et essais pour
les perches élagueuses à moteur - Partie 1: Machines
équipées d'un moteur à combustion interne intégré
(ISO 11680-1:2021)

Forstmaschinen - Sicherheitstechnische
Anforderungen und Prüfung für motorbetriebene
Hochentaster - Teil 1: Maschinen mit Antrieb durch
integrierten Verbrennungsmotor (ISO 11680-1:2021)

This European Standard was approved by CEN on 9 October 2021.

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, Turkey 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

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 11680-1:2022
<https://standards.iteh.ai/catalog/standards/sist/86e39b5e-2a27-455f-86c9-c08395bec6d2/sist-en-iso-11680-1-2022>

European foreword

This document (EN ISO 11680-1:2021) 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 May 2022, and conflicting national standards shall be withdrawn at the latest by May 2022.

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 11680-1:2011.

This document has been prepared under a Standardization Request given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s) / Regulation(s).

For the relationship with EU Directive(s) / Regulation(s), 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, Turkey and the United Kingdom.

Endorsement notice

The text of ISO 11680-1:2021 has been approved by CEN as EN ISO 11680-1:2021 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 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.

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
and Annex I of Directive 2006/42/EC**

The relevant Essential Requirements of EU Directive 2006/42/EC	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
1. ESSENTIAL HEALTH AND SAFETY REQUIREMENTS	(standards.iteh.ai)	
1.1.2. Principles of safety integration	4.1 SIST EN ISO 11680-1:2022	
1.1.3. Materials and products	4.12 SIST EN ISO 11680-1:2022	
1.1.5. Design of machinery to facilitate its handling	4.3; 4.4	
1.1.6. Ergonomics	4.3; 4.4	
1.1.7. Operating positions	4.15; 5.1; 5.2	
1.2. CONTROL SYSTEMS		
1.2.1. Safety and reliability of control systems	4.8; 4.9; 4.10; 4.11	
1.2.2. Control devices	4.8; 4.9; 4.10; 5.2	
1.2.3. Starting	4.8; 4.10	
1.2.4.1. Normal stop	4.9	
1.2.4.2. Operational stop	4.11	
1.2.4.4. Assembly of machinery	4.9; 4.11	
1.2.6. Failure of the power supply	4.8; 4.9	
1.3. PROTECTION AGAINST MECHANICAL HAZARDS		
1.3.1. Risk of loss of stability	-	not covered
1.3.2. Risk of break-up during	4.5; 4.19; 4.20; 5.1	

The relevant Essential Requirements of EU Directive 2006/42/EC	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
operation		
1.3.3. Risks due to falling or ejected objects	-	not covered
1.3.4. Risks due to surfaces, edges or angles	4.1; 4.6	
1.3.6. Risks related to variations in operating conditions	4.10	
1.3.7. Risks related to moving parts	4.2; 4.7; 4.11	
1.3.8. Choice of protection against risks arising from moving parts		
1.3.8.1. Moving transmission parts	4.2	
1.3.8.2. Moving parts involved in the process	4.7	
1.3.9. Risks of uncontrolled movements	4.10; 4.11	
1.4. REQUIRED CHARACTERISTICS OF GUARDS AND PROTECTIVE DEVICES		
1.4.1. General requirements	4.2, 4.1.4	
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	4.2; 4.7	
1.5. RISKS DUE TO OTHER HAZARDS		
1.5.2. Static electricity	-	not covered
1.5.3. Energy supply other than electricity	4.12; 4.19; 4.20	
1.5.4. Errors of fitting	5.1	
1.5.5. Extreme temperatures	4.14	
1.5.6. Fire	4.12; 5.1	
1.5.8. Noise	4.17; 5.1	
1.5.9. Vibrations	4.16; 5.1	
1.5.11. External radiation	4.18	
1.5.13. Emissions of hazardous materials and substances	4.12; 4.15	
1.5.15. Risk of slipping, tripping or	-	not covered

EN ISO 11680-1:2021 (E)

The relevant Essential Requirements of EU Directive 2006/42/EC	Clause(s)/sub-clause(s) of this EN	Remarks/Notes
falling		
1.6. MAINTENANCE		
1.6.1. Machinery maintenance	4.5.1; 5.1	
1.6.2. Access to operating positions and servicing points	-	not covered
1.6.3. Isolation of energy sources	4.9	
1.6.4. Operator intervention	5.1	
1.6.5. Cleaning of internal parts	-	not covered
1.7. INFORMATION		
1.7.1. Information and warnings on the machinery	5.2	
1.7.1.1. Information and information devices	5.2	
1.7.1.2. Warning devices	-	not covered
1.7.2. Warning of residual risks	5.1; 5.2	
1.7.3. Marking of machinery	5.2	
1.7.4. Instructions	5.1	
1.7.4.1. General principles for the drafting of instructions	5.1	
1.7.4.2. Contents of the instructions	5.1	
1.7.4.3. Sales literature		not covered
2.2. PORTABLE HAND-HELD AND/OR HAND-GUIDED MACHINERY		
2.2.1. General	4.3; 4.9; 4.10; 4.11	
2.2.1.1. Instructions	5.1	

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
STANDARDISO
11680-1Third edition
2021-10

**Machinery for forestry — Safety
requirements and testing for pole-
mounted powered pruners —****Part 1:
Machines fitted with an integral
combustion engine**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

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

*Partie 1: Machines équipées d'un moteur à combustion interne
intégré*

<https://standards.iteh.ai/catalog/standards/sist/86e39b5e-2a27-455f-86c9-c08395bec6d2/sist-en-iso-11680-1-2022>

Reference number
ISO 11680-1:2021(E)

© ISO 2021

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 11680-1:2022

<https://standards.iteh.ai/catalog/standards/sist/86e39b5e-2a27-455f-86c9-c08395bec6d2/sist-en-iso-11680-1-2022>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2021

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	vii
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	6
4.3.1 Requirements	6
4.3.2 Verification	6
4.4 Harness	6
4.4.1 Requirements	6
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 Transport cover for cutting attachment	9
4.6.1 Requirements	9
4.6.2 Verification	9
4.7 Distance to cutting attachment	9
4.7.1 Requirements	9
4.7.2 Verification	10
4.8 Engine starting device	10
4.8.1 Requirements	10
4.8.2 Verification	10
4.9 Engine stopping device	10
4.9.1 Requirements	10
4.9.2 Verification	11
4.10 Throttle control	11
4.10.1 Throttle trigger	11
4.10.2 Operation	11
4.10.3 Throttle control latch	12
4.11 Clutch	12
4.11.1 Requirements	12
4.11.2 Verification	13
4.12 Tanks	13
4.12.1 Requirements	13
4.12.2 Verification	13
4.13 Protection against contact with parts of the machine under high voltage	13
4.13.1 Requirements	13
4.13.2 Verification	13
4.14 Protection against contact with hot parts	14
4.14.1 Requirements	14
4.14.2 Verification	14
4.15 Exhaust gases	15
4.15.1 Requirements	15
4.15.2 Verification	15
4.16 Vibration	15
4.16.1 Reduction by design at source and by protective measures	15

ISO 11680-1:2021(E)

4.16.2	Vibration measurement	15
4.17	Noise	15
4.17.1	Reduction by design at source and protective measures	15
4.17.2	Noise measurement	15
4.18	Electromagnetic immunity	16
4.18.1	Requirements	16
4.18.2	Verification	16
4.19	Fuel feed line strength and accessibility	16
4.19.1	Requirements	16
4.19.2	Verification	16
4.20	Fuel tank structural integrity	16
4.20.1	Requirements	16
4.20.2	Verification	16
5	Information for use	17
5.1	Instructions	17
5.1.1	General	17
5.1.2	Technical data	17
5.1.3	Other information	17
5.2	Markings and warnings	19
5.2.1	General requirements	19
5.2.2	Marking requirements	20
5.2.3	Warning requirements	21
5.3	Test of labels	21
5.3.1	Preparation of test specimens and control specimens	21
5.3.2	Wipe resistance test	21
5.3.3	Adhesion test	22
Annex A	(informative) List of significant hazards	23
Annex B	(normative) Procedures for the evaluation of the strength and accessibility of fuel feed lines	25
Annex C	(normative) Verification of protection against contact with hot parts	26
Bibliography	28

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 documents 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).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

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 third edition cancels and replaces the second edition (ISO 11680-1:2011), which has been technically revised.

The main changes compared to the previous edition are as follows:

- [Clause 1](#), the scope has been broadened to include extended and telescopic machines;
- [Clause 3](#), definitions for “cutting attachment”, “dry weight”, “extendable”, “hand-held” and “telescopic” have been added;
- [Figure 1](#) has been amended to show different types of pole mounted powered pruners;
- [Clause 4](#):
 - a new subclause, [4.2](#) “Protection against contact with power driven components”, has been added;
 - in [4.4](#), harness requirements have been reworded and amended;
 - in [4.5.2](#), the requirements for circular saw blade securing have been clarified;
 - in [4.7](#), the distance to the cutting attachment have been clarified;
 - in [4.10.2](#), the requirement to test the throttle trigger lockout function has been added;
 - in [4.12](#), the verification method for fuel tank ventilation system has been added;
 - in [4.14](#), the requirements for protection against hot surfaces have been reworded and amended;