

SLOVENSKI STANDARD
oSIST prEN ISO 11806-2:2020
01-september-2020

Kmetijski in gozdarski stroji - Tehnične varnostne zahteve in preskus za prenosne, ročno vodene kosilnice s prosto rezjo, opremljene z rezilno ploščo ali kosilno nitko - 2. del: Naprave z nahrbtno prenosno pogonsko enoto (ISO/DIS 11806-2:2020)

Agricultural and forestry machinery - Safety requirements and testing for portable, hand-held, powered brush-cutters and grass-trimmers - Part 2: Machines for use with back-pack power unit (ISO/DIS 11806-2:2020)

iTeh STANDARD PREVIEW

Land- und forstwirtschaftliche Maschinen - Sicherheitstechnische Anforderungen und Prüfung für tragbare handgehaltene motorbetriebene Freischneider und Grastrimmer - Teil 2: Maschinen für den Gebrauch mit rückentragbarer Antriebseinheit (ISO/DIS 11806-2:2020)

<https://standards.iteh.ai/catalog/standards/sist/6338c6ab-66e3-4862-ae42-4752978dc00e/osist-pren-iso-11806-2-2020>

Matériel agricole et forestier - Exigences de sécurité et essais pour débroussailleuses et coupe-herbe portatifs à moteur - Partie 2: Machines pour utilisation avec source motrice portée à dos (ISO/DIS 11806-2:2020)

Ta slovenski standard je istoveten z: prEN ISO 11806-2

ICS:

65.060.80 Gozdarska oprema Forestry equipment

oSIST prEN ISO 11806-2:2020 **en,fr,de**

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[oSIST prEN ISO 11806-2:2020](https://standards.iteh.ai/catalog/standards/sist/6338c6ab-66e3-4862-ae42-4752978dc00e/osist-pren-iso-11806-2-2020)

<https://standards.iteh.ai/catalog/standards/sist/6338c6ab-66e3-4862-ae42-4752978dc00e/osist-pren-iso-11806-2-2020>

DRAFT INTERNATIONAL STANDARD

ISO/DIS 11806-2

ISO/TC 23/SC 17

Secretariat: SIS

Voting begins on:
2020-06-18Voting terminates on:
2020-09-10

Agricultural and forestry machinery — Safety requirements and testing for portable, hand-held, powered brush-cutters and grass-trimmers —

Part 2: Machines for use with back-pack power unit

Matériel agricole et forestier — Exigences de sécurité et essais pour débroussailleuses et coupe-herbe portatifs à moteur —

Partie 2: Machines pour utilisation avec source motrice portée à dos

ICS: 65.060.80

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[oSIST prEN ISO 11806-2:2020](https://standards.iteh.ai/catalog/standards/sist/6338c6ab-66e3-4862-ae42-4752978dc00e/osist-pren-iso-11806-2-2020)

<https://standards.iteh.ai/catalog/standards/sist/6338c6ab-66e3-4862-ae42-4752978dc00e/osist-pren-iso-11806-2-2020>

THIS DOCUMENT IS A DRAFT CIRCULATED FOR COMMENT AND APPROVAL. IT IS THEREFORE SUBJECT TO CHANGE AND MAY NOT BE REFERRED TO AS AN INTERNATIONAL STANDARD UNTIL PUBLISHED AS SUCH.

IN ADDITION TO THEIR EVALUATION AS BEING ACCEPTABLE FOR INDUSTRIAL, TECHNOLOGICAL, COMMERCIAL AND USER PURPOSES, DRAFT INTERNATIONAL STANDARDS MAY ON OCCASION HAVE TO BE CONSIDERED IN THE LIGHT OF THEIR POTENTIAL TO BECOME STANDARDS TO WHICH REFERENCE MAY BE MADE IN NATIONAL REGULATIONS.

RECIPIENTS OF THIS DRAFT ARE INVITED TO SUBMIT, WITH THEIR COMMENTS, NOTIFICATION OF ANY RELEVANT PATENT RIGHTS OF WHICH THEY ARE AWARE AND TO PROVIDE SUPPORTING DOCUMENTATION.

This document is circulated as received from the committee secretariat.

ISO/CEN PARALLEL PROCESSING



Reference number
ISO/DIS 11806-2:2020(E)

iTeh STANDARD PREVIEW (standards.iteh.ai)

<https://standards.iteh.ai/catalog/standards/sist/6338c6ab-66e3-4862-ae42-4752978dc00e/osist-pren-iso-11806-2-2020>



COPYRIGHT PROTECTED DOCUMENT

© ISO 2020

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
Fax: +41 22 749 09 47
Email: copyright@iso.org
Website: www.iso.org

Published in Switzerland

Contents

	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Safety requirements and/or protective measures	3
4.1 General.....	3
4.2 Distance to cutting attachment.....	3
4.2.1 Requirements.....	3
4.2.2 Verification.....	3
4.3 Handgrip on back-pack power unit.....	4
4.3.1 Requirement.....	4
4.3.2 Verification.....	4
4.4 Harness for back-pack power unit.....	4
4.4.1 Requirements.....	4
4.4.2 Verification.....	5
4.5 Hydraulic and pneumatic pipes and hoses.....	5
4.5.1 Requirements.....	5
4.5.2 Verification.....	5
5 Information for use	5
Annex A (informative) List of significant hazards	6
Annex ZA (informative) Relationship between this European Standard and the essential requirements of Directive 2006/42/EC aimed to be covered	7
Bibliography	13

ISO/DIS 11806-2:2020(E)

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 forest machinery*.

This third edition of ISO 11806-2 cancels and replaces ISO 11806-2:2020, of which it is also a technical revision.

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

- reference to the updated version of ISO 11806-1
- requirements for the harness for the back-pack power unit reworded and amended

A list of all parts in the ISO 11806 series can be found on the ISO website.

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.

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.

iTeh STANDARD PREVIEW (standards.iteh.ai)

[oSIST prEN ISO 11806-2:2020](https://standards.iteh.ai/catalog/standards/sist/6338c6ab-66e3-4862-ae42-4752978dc00e/osist-pren-iso-11806-2-2020)

<https://standards.iteh.ai/catalog/standards/sist/6338c6ab-66e3-4862-ae42-4752978dc00e/osist-pren-iso-11806-2-2020>

iTeh STANDARD PREVIEW
(standards.iteh.ai)

[oSIST prEN ISO 11806-2:2020](https://standards.iteh.ai/catalog/standards/sist/6338c6ab-66e3-4862-ae42-4752978dc00e/osist-pren-iso-11806-2-2020)

<https://standards.iteh.ai/catalog/standards/sist/6338c6ab-66e3-4862-ae42-4752978dc00e/osist-pren-iso-11806-2-2020>

Agricultural and forestry machinery — Safety requirements and testing for portable, hand-held, powered brush-cutters and grass-trimmers —

Part 2: Machines for use with back-pack power unit

1 Scope

This part of ISO 11806 gives safety requirements and measures for their verification for the design and construction of portable, hand-held, powered brush-cutters and grass-trimmers with a back-pack-mounted combustion engine power source and mechanical power transmission between the power source and the cutting attachment. Methods for the elimination or reduction of hazards arising from the use of these machines and the type of information on safe working practices to be provided by the manufacturer are specified.

This part of ISO 11806, taken together with the relevant clauses of ISO 11806-1 (see 4.1), deals with all significant hazards, hazardous situations and hazardous events, with the exception of whole-body vibration from the back-pack power unit, relevant to these machines when they are used as intended and under conditions of misuse which are reasonably foreseeable by the manufacturer.

NOTE 1 A standardized test procedure for measuring whole-body vibration from the back-pack power unit is presently not available.

NOTE 2 See Annex A, together with Annex A in ISO 11806-1:2020, for a list of significant hazards.

This part of ISO 11806 is applicable to portable, hand-held, powered brush-cutters and grass-trimmers manufactured after its date of publication.

This part of ISO 11806 is not applicable to machines equipped with metallic cutting attachments consisting of more than one piece, e.g. pivoting chains or flail blades.

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 11806-1:2020, *Agricultural and forestry machinery — Safety requirements and testing for portable, hand-held, powered brush-cutters and grass-trimmers — Part 1: Machines fitted with an integral combustion engine*

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/DIS 11806-2:2020(E)

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 11806-1 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

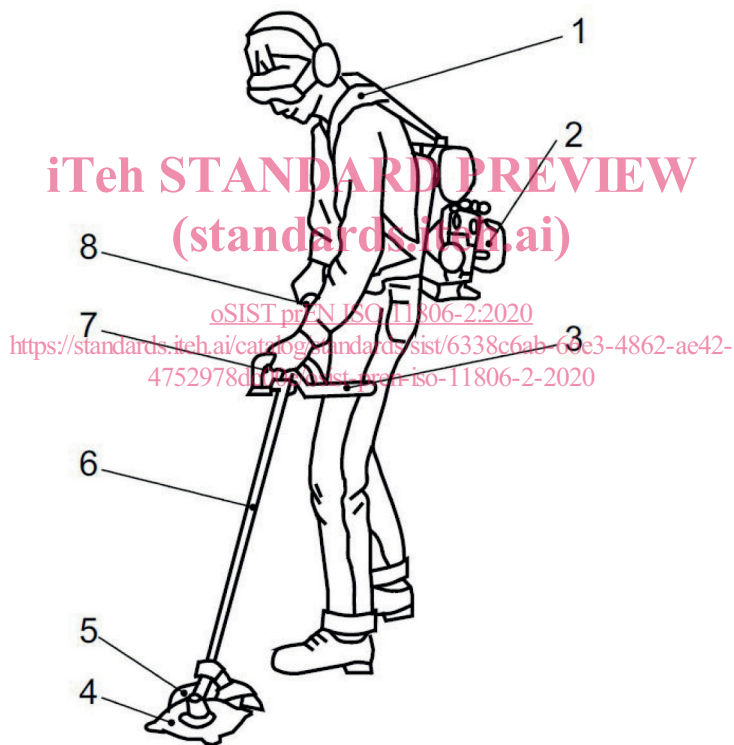
Note 1 to entry [Figure 1](#) provides an example of a brush-cutter with a back-pack power unit falling within the scope of this part of ISO 11806.

3.1 appliance

assembly of drive shaft tube, cutting attachment with its guard and handles

3.2 machine

complete brush-cutter (or grass-trimmer), including back-pack power unit and appliance



Key

- 1 harness
- 2 back-pack power unit
- 3 barrier
- 4 blade
- 5 cutting-attachment guard
- 6 drive-shaft tube
- 7 front handle
- 8 rear handle

Figure 1 — Example of a brush-cutter with back-pack power unit

4 Safety requirements and/or protective measures

4.1 General

Machines shall comply with the safety requirements and/or protective measures of this clause. In addition, the machine shall be designed according to the principles of ISO 12100 for relevant but not significant hazards which are not dealt with by this part of ISO 11806.

Machines shall comply with ISO 11806-1:2020, Clause 4, except for 4.5.

The safe operation of a brush-cutter and a grass-trimmer also depends on the safe environment associated with the use of personal protective equipment (PPE), such as gloves, slip-resistance footwear, and leg, eye and hearing protective equipment, as well as safe working procedures (see ISO 11806-1:2020, 5.1).

If a grass-trimmer can be converted to a brush-cutter then the converted machine shall comply with requirements for a brush-cutter and vice versa.

Except where otherwise specified in this part of ISO 11806, the safety distances specified in ISO 13857:2019,

4.2.4.1 and 4.2.4.3, shall be met.

4.2 Distance to cutting attachment

4.2.1 Requirements

Machines with front and rear handles shall have a minimum straight-line distance of 1 200 mm from the mid- point of the rear handle to the nearest unguarded point of the cutting attachment (point A in [Figure 2](#)). Point A is the intersection between the plane perpendicular to the cutting path and the side-edge of the cutting- attachment guard.

This minimum distance shall apply to all recommended cutting attachments.

4.2.2 Verification

The distance shall be verified by measurement.