



**SLOVENSKI STANDARD
SIST EN ISO 19472-2:2022**

01-maj-2022

Gozdarski stroji - Vitli - 2. del: Vlečni pomožni vitli (ISO 19472-2:2022)

Machinery for forestry - Winches - Part 2: Traction aid winches (ISO 19472-2:2022)

Forstmaschinen - Winden - Teil 2: Traktionshilfs- und Unterstützungswinden (ISO 19472-2:2022)

Matériels forestiers - Treuils - Partie 2: Treuils d'aide à la traction (ISO 19472-2:2022)

Ta slovenski standard je istoveten z: EN ISO 19472-2:2022

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ICS:

65.060.80

Gozdarska oprema

2022

Forestry equipment

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en,fr,de

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EUROPEAN STANDARD

EN ISO 19472-2

NORME EUROPÉENNE

EUROPÄISCHE NORM

March 2022

ICS 65.060.80

English Version

Machinery for forestry - Winches - Part 2: Traction aid winches (ISO 19472-2:2022)

Matériels forestiers - Treuils - Partie 2: Treuils d'aide à la traction (ISO 19472-2:2022)

Forstmaschinen - Winden - Maße, Leistung und Sicherheit - Teil 2: Traktionshilfs- und Unterstützungswinden (ISO 19472-2:2022)

This European Standard was approved by CEN on 26 December 2021.

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COMITÉ EUROPÉEN DE NORMALISATION
EUROPÄISCHES KOMITEE FÜR NORMUNG

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

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European foreword

This document (EN ISO 19472-2:2022) 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of an identical text or by endorsement, at the latest by September 2022, and conflicting national standards shall be withdrawn at the latest by September 2022.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 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.

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Endorsement notice

The text of ISO 19472-2:2022 has been approved by CEN as EN ISO 19472-2:2022 without any modification.

Annex ZA (informative)

Relationship between this European Standard and the essential Requirements of EU 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 standardization 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 Directive 2006/42/EC and associated EFTA regulations.

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

The relevant Essential requirements of EU Directive 2006/42/EC	Clause(s)/subclause(s) of this EN	Remarks/Notes
1.1.2. (a) Principles of safety integration	4; 5.2	
1.1.2 (c) Principles of safety integration	4.11.2; 5.2	
1.1.2 (d) Principles of safety integration	5.2	
1.1.2. (e) Principles of safety integration	4.4; 4.5	
1.1.3. Materials and products	4.5; 4.8; 4.12	
1.1.5. Design of machinery to facilitate its handling	4.2.3; 4.4; 4.5; 4.12; 4.13; 4.19	
1.1.6. Ergonomics	4.9	
1.1.7. Operating positions	4.13	only additions to existing operator stations are covered
1.2.1. Safety and reliability of control systems	4.2; 4.7; 4.9; 4.11	
1.2.2. Control devices	4.9	
1.2.3. Starting	4.9; 4.11	
1.2.4.1. Normal stop	4.9	
1.2.4.3. Emergency stop	4.10	
1.2.4.4. Assembly of machinery	4.9; 4.10; 4.11.2; 4.13	
1.2.5. Selection of control or operating modes	4.11	

1.2.6. Failure of power supply	4.9; 4.13	
1.3.1. Risk of loss of stability	4.2.3; 4.5	
1.3.2. Risk of break-up during operation	4.2.3; 4.3.1; 4.3.2; 4.4; 4.12	
1.3.4. Risks due to surfaces, edges or angles	4.2.3	
1.3.6. Risks related to variations in operating conditions	4.2.1; 4.3.1; 4.11.2	operating conditions besides traction aid are not covered (e.g. winch is used for skidding)
1.3.7. Risks related to moving parts	4.2.1; 4.2.3; 4.3; 5.3; 6	
1.3.8.1. Moving transmission parts	4.2.3; 4.8	
1.3.8.2. Moving parts involved in the process	4.2.3; 5.3	
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1.4.1. Guards—General requirements	4.2.3	
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1.5.15. Risk of slipping, tripping or falling	4.12; 4.18	
1.5.16. Lightning		not covered
1.6.1. Machinery maintenance	4.17; 4.18; 5.1; 5.2	
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1.7.1. Information and warnings on the machinery	4.2.2; 4.3.1; 4.9; 4.11.2; 4.11.3; 4.13; 5; 6	
1.7.2. Warning of residual risks	4.11.2; 5; 6	
1.7.3. Marking of machinery	4.4; 6	

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3.2.1. Driving position	4.13	
3.3. Control systems	4.9; 4.11.3; 4.13	
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3.4.5. Means of access	4.12; 4.13; 4.18	
3.4.6. Towing devices	4.3; 4.4; 4.5; 5.2; 6	
3.4.7. Transmission of power between self-propelled machinery (or tractor) and recipient machinery	4.8; 4.12	
3.5.1. Batteries	4.7	
3.5.2. Fire	4.16	
3.6.1. Signs, signals and warnings	4.11.2; 4.11.3; 4.13; 6	warning devices of supported machines are not covered
3.6.2. Marking	6	
3.6.3. Instructions	5.1; 5.2	

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
19472-2

First edition
2022-01

**Machinery for forestry — Winches —
Part 2:
Traction aid winches**

Matériels forestiers — Treuils —

Partie 2: Treuils d'aide à la traction

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Reference number
ISO 19472-2:2022(E)

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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

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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).

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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 15, *Machinery for forestry*, 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).

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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).

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.

Traction aid winches are used with forest machines when operating in sloped terrain and on soils with limited bearing capacity or poor traction. Such winches do provide traction aid to a supported machine. The combined tractive effort provided by the machine's wheels or tracks and the traction aid winch makes it easier to access steep slopes and manage unfavourable soil conditions while maintaining productivity by avoiding excess uphill driving or driving around a gradient, especially with harvesters, fellers, forwarders and skidders. Forest floor damages are greatly reduced which leads to a lower risk of erosion after logging operations. Machine stability is also enhanced, and thus general safety of operation is improved. Traction aid winches offer a possibility for machines to work on slopes which otherwise would be difficult to negotiate. This makes it simpler to mechanize work in steep terrain which otherwise would have to be performed manually.

Forestry winches for typical logging, such as the ones used for skidding or cable yarding of stems/logs, are designed for a different application than traction aid winches. The control systems, safety features, and performance measures of forestry winches have been designed for a purpose that is incompatible with the requirements of traction aid applications. Therefore, forestry winches should not be used in traction aid applications.

The main categories of winches for tractive efforts are shown in [Figure 1](#). Further aspects of the design and operation of traction aid winches can be found in [Annex E](#).

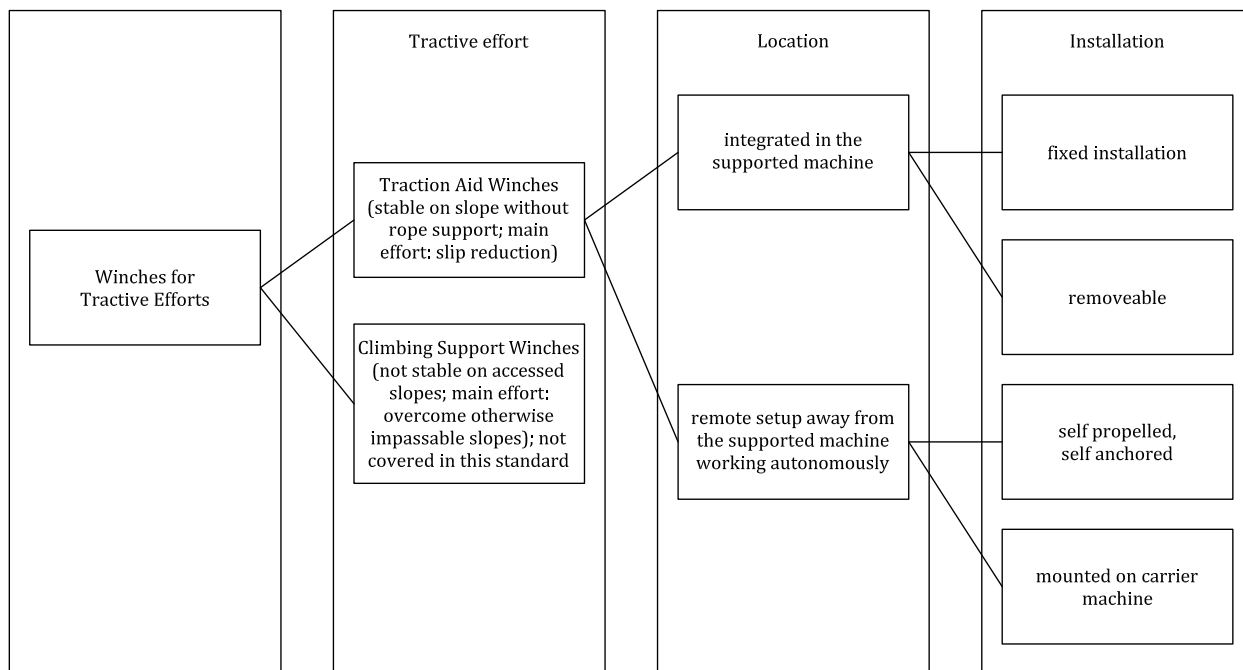


Figure 1 — Categorization of winches for tractive efforts

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