SLOVENSKI STANDARD
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Prenosne motorne škarje za živo mejo - Definicije, mehanske varnostne zahteve in preskušanje

Portable powered hedge trimmers -- Definitions, mechanical safety requirements and tests

Taille-haie portatifs à moteur -- Définitions, prescriptions de sécurité mécanique et essais

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INTERNATIONAL STANDARD

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Portable powered hedge trimmers — Definitions, mechanical safety requirements and tests

Taille-haie portatifs à moteur — Définitions, prescriptions de sécurité mécanique et essais

Reference number
ISO 10517:1993(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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 10517 was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Sub-Committee SC 13, *Powered lawn and garden equipment*.

Annex A forms an integral part of this International Standard.

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Portable powered hedge trimmers — Definitions, mechanical safety requirements and tests

1 Scope

This International Standard presents definitions of terms, and specifies safety requirements and test procedures applicable to portable hand-held powered hedge trimmers which are primarily designed for cutting hedges and bushes using one or more linear reciprocating cutter blades.

It does not apply to hedge trimmers with rotating blades.

For different types of machines, see figure 1 a) and b) showing two internal combustion engine-driven hedge trimmers and figure 1 c) for an electrical-driven hedge trimmer.

The electrical aspects of electrical powered hedge trimmers are not covered by this International Standard. See IEC 745-2-15.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

IEC 745-1:1982, *Safety of hand-held motor-operated electric tools — Part 1: General requirements.*

IEC 745-2-15:1984, *Safety of hand-held motor-operated electric tools — Part 2: Particular requirements for hedge trimmers and grass shears.*

3 Definitions

For the purposes of this International Standard, the following definitions apply.

3.1 blade tooth: That part of the cutter blade which is sharpened or has sharp edges to perform the shearing action.

3.2 cutter blade: Part of the cutting device having blade teeth which cut by shearing action either against other blade teeth or against an unsharpened shear plate.

3.3 cutting device: Exposed part of the assembly of cutter blade and unsharpened shear plate, or the cutting blades together with any supporting part, which perform the cutting action.

3.4 front handle: Support handle located at or towards the cutting device.

3.5 rear handle: Support handle located furthest from the cutting device.

3.6 transport handle: Handle designated by the manufacturer for carrying the machine.

NOTE 1 This may be the front handle.

3.7 throttle lock: Device for temporarily setting the throttle in a partially open position, to aid starting.

NOTE 2 This definition applies only to internal combustion engine-driven hedge trimmers.

3.8 blade control: Throttle trigger or switch actuator activated by the operator's hand or finger, for controlling the blade movement.

3.9 cutting length: Effective cutting length of the cutting device measured from the inside edge of the first blade tooth or shear plate tooth to the inside edge of the last blade tooth or shear blade tooth (see figure 2).

3.10 maximum operating engine speed: Highest engine speed obtainable when adjusted in accordance with the hedge trimmer manufacturer's specifications and/or instructions with the cutting device engaged, taking into account all tolerances.

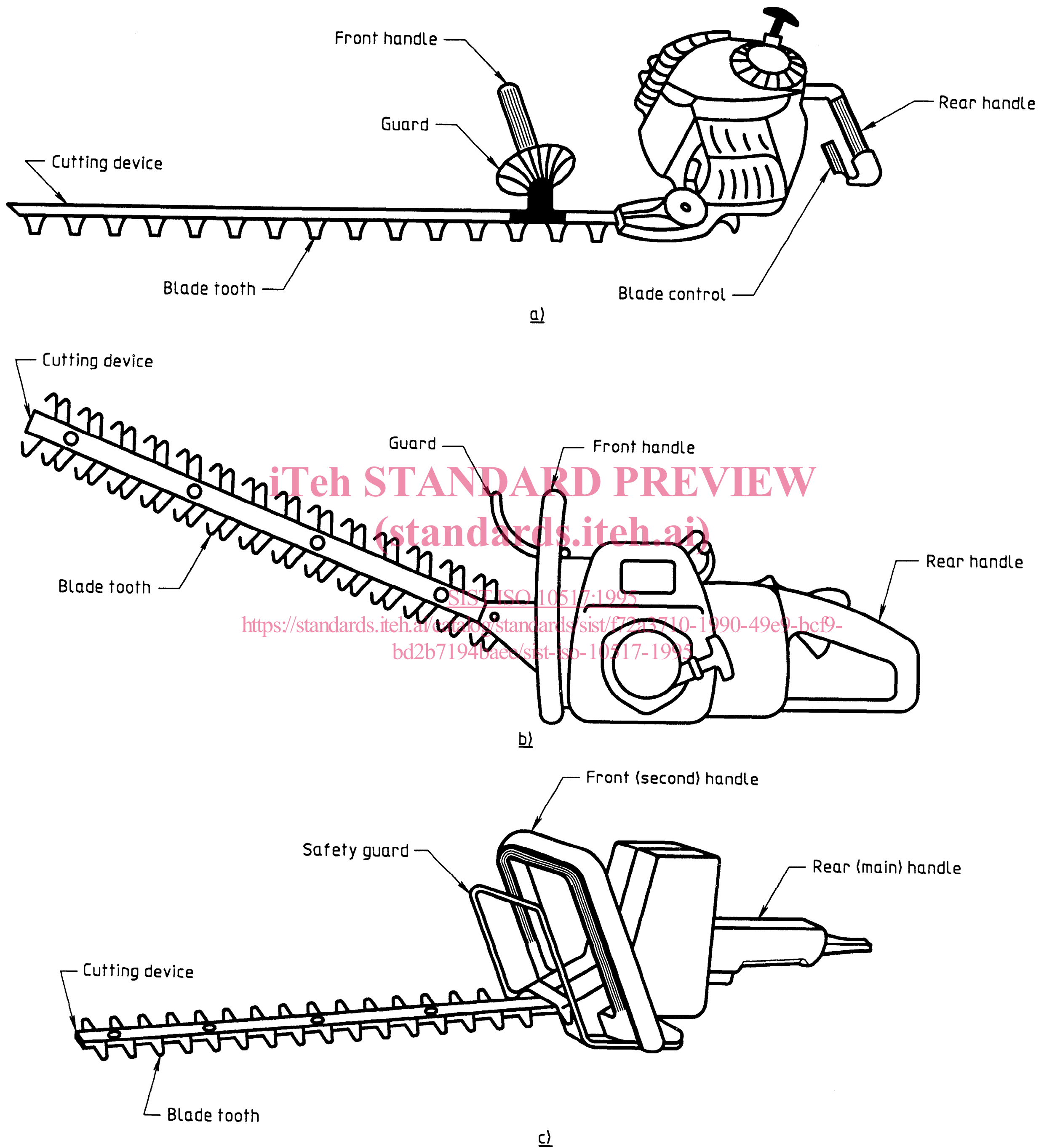

Figure 1

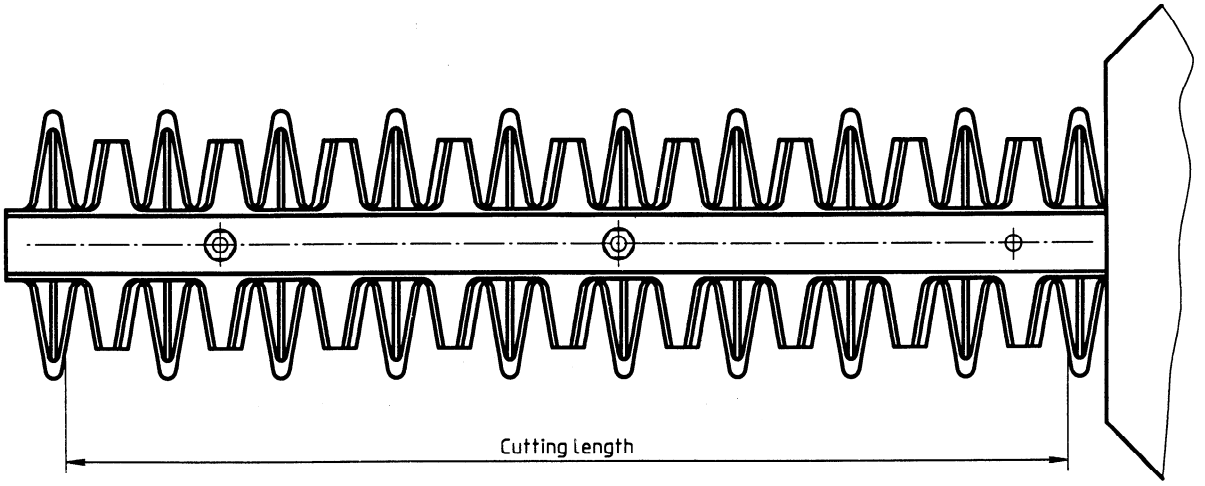

Figure 2

4 Handles

4.1 Requirements

Hedge trimmers with a cutting length longer than 200 mm shall be provided with two handles. If a part containing the motor is suitably shaped it may be considered as a handle.

The handles shall be designed in such a way that each one can be grasped completely with one hand. The gripping surface shall be at least 100 mm long (for an example, see figure 7) and there shall be 25 mm radial clearance around the gripping length. On bail or closed handles (U-shaped handles) this dimension is related to the inner width of the gripping surface. On straight handles it is the complete length between the housing and the end of the handle.

Adjustable handles shall be positively located. If they are adjustable in different positions it shall not be possible to lock them in a position not complying with the safety requirements.

If a handle is supplied unassembled from the machine, it shall not be possible to assemble it without any necessary guard being properly in place.

Compliance shall be checked by inspection and measurement.

4.2 Hand protection

4.2.1 Requirement

With both hands on the handles, it shall not be possible to touch the moving cutter blade with fingers spread out.

4.2.2 Test method

The requirement in 4.2.1 is met if both handles are located so that the test distance from the cutter blade to the side of either handle furthest from the cutter blade is not less than 120 mm. This distance shall be measured along the shortest paths from the furthest side of the handle to the cutter blade [see figure 3 a)] and, if there is a guard, from the furthest side of the handle to the guard and from here to the nearest cutting edge of the cutter blade [see figure 3 b)].

4.2.3 Cutting device requirement

Hedge trimmers shall be so designed that injury to the operator, from the cutting device, is reduced as far as practical. This requirement is met if the requirements of table 1 and figures 4 to 6 are met.

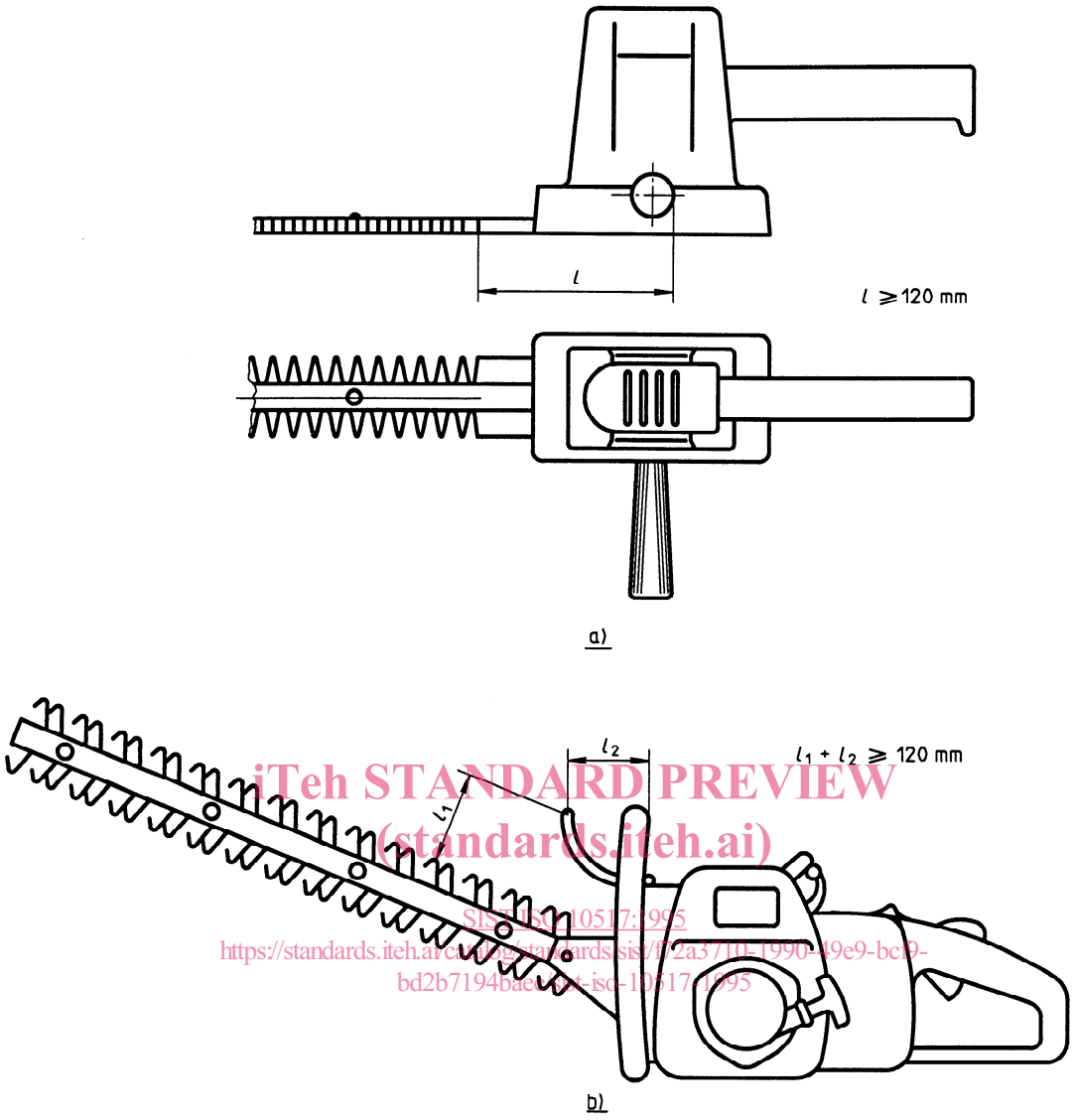

Figure 3

Table 1 — Cutting device requirements

Category	Cutting device	Cutting length mm	Holding moment N·m	Handle		Stopping time[1] s
				number	blade control	
1	figure 4	⩽ 200	⩽ 20	1	1	none
2	figure 4 or 5	> 200	< 20	2	both	2
3	figure 4, 5 or 6	—	> 20	2	rear	2

1) Stopping time will be reviewed 3 years after publication with a view to reducing the values.

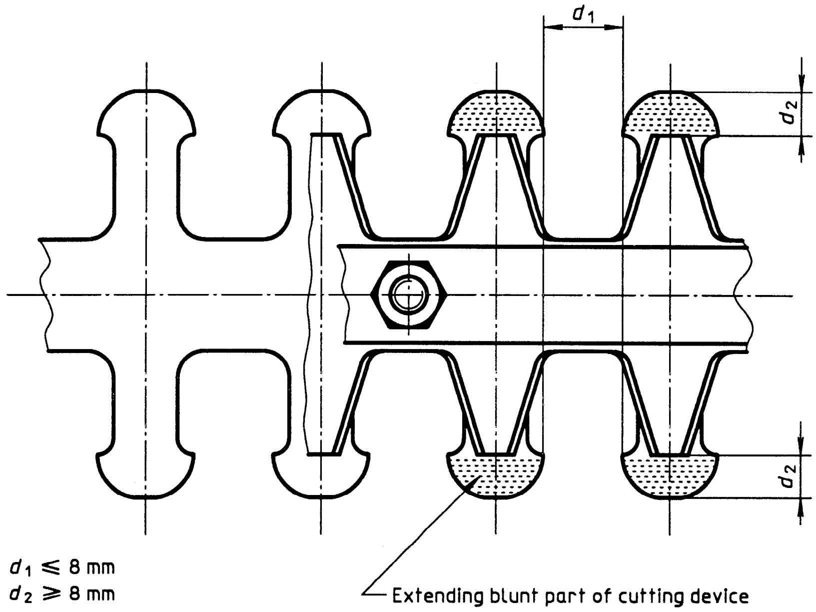

Figure 4

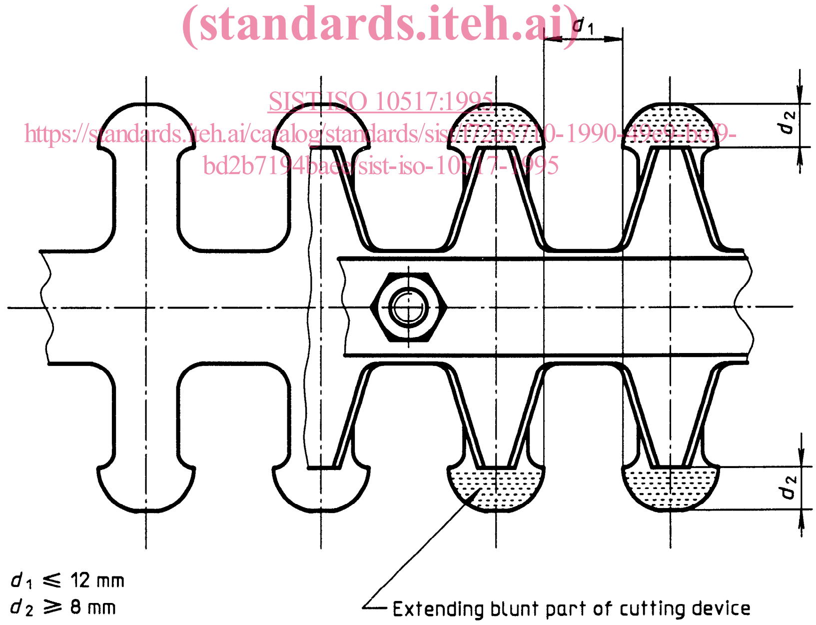

Figure 5