



# SLOVENSKI STANDARD

## SIST HD 400.3L S2:1995

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### Hand held motor operated tools - Part 2: Particular specifications - Section L: Chain saws

Hand-held motor operated tools -- Part II: Particular specifications -- Section L: Chain saws

Handgeführte Elektrowerkzeuge -- Teil II: Besondere Bestimmungen -- Hauptabschnitt L: Kettensägen

Outils portatifs à main à moteur -- Partie II: Règles particulières -- Section L: Scies à chaînes

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**Ta slovenski standard je istoveten z: HD 400.3L S2:1988**

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#### **ICS:**

25.140.20	Električna orodja	Electric tools
65.060.80	Gozdarska oprema	Forestry equipment

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**en**

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HD 400.3 Section L S2

ENGLISH VERSION

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KEY WORDS: Hand-held motor operated tools; particular requirements on  
 safety; chain saws

HAND-HELD MOTOR OPERATED TOOLS  
 PART II: PARTICULAR SPECIFICATIONS  
 SECTION L: CHAIN SAWS

Outils portatifs à main à moteur  
 Partie II: Règles particulières  
 Section L: Scies à chaîne

Handgeführte Elektrowerkzeuge  
 Teil II: Besondere Bestimmungen  
 Hauptabschnitt L: Kettensägen

## BODY OF THE HD

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 The Harmonization Document consists of:

- CEE 20 Part II Section L, ed 1 (1977); CEE 313, not appended
- Common modifications prepared by CLC/TC 61F

**This Harmonization Document was approved by CENELEC on 1988-03-01.**

The English and French versions of this Harmonization Document are provided by the text of the CEE publication and the German version is the official translation of the CEE text.  
 All texts prepared by CENELEC exist in three official versions (English, French, and German).

According to the CENELEC Internal Regulations the CENELEC member National Committees are bound:

to announce the existence of this Harmonization Document at national level  
**by or before 1988-07-01**

to publish their new harmonized national standard  
**by or before 1990-01-01**

to withdraw all conflicting national standards  
**by or before 1990-01-01.**

Harmonized national standards are listed on the HD information sheet, which is available from the CENELEC National Committees or from the CENELEC Central Secretariat.

The CENELEC National Committees are the national electrotechnical committees of Austria, Belgium, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxemburg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.

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FOREWORD

This Harmonization Document has been prepared by the Secretariat of CENELEC Technical Committee 61F in accordance with the decisions taken by this committee during its meetings held in Athens in October 1985

This second edition of the Harmonization Document is based on the HD 400.3 Section L 1981 which has been revised mainly as far as clauses regarding mechanical safety are concerned.

This section L S2 of part II of HD 400.3 has to be used together with Part I of HD 400.1.

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The clauses of this section supplement or modify the corresponding clauses in Part I. Where there is no corresponding clause or sub-clause in this section, the clause or sub-clause of Part I applies without modification as far as is reasonable. Where the text of these sections states "addition", "modification" or "replacement", the relevant requirement, test specification or explanation of Part I should be adapted accordingly.

Note 1. Temporary national deviations from this Harmonization Document are mentioned in an informative annex which does not form part of this Harmonization Document. It is published separately.

HD 400.3SECTION LCHAIN SAWS

## 1. SCOPE

## 1.1 Addition

Chain saws operated by two persons are excluded from the scope of this section.

## 2. DEFINITIONS

## 2.2 Modification:

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18. Normal load denotes the load obtained when the chain saw is operated continuously the load being such that the input, in watts is equal to rated input. <https://standards.iteh.ai/catalog/standards/sist/e7c79800-4294-4d5a-8d5a-65031358df63/sist-hd-400-3l-s2-1995>

## Addition:

For tests carried out at normal load, the chain and bar may be removed and the driving wheel of the saw chain loaded by means of a brake.

## Addition:

29. CHAIN BRAKE means a device used to stop the saw chain;
30. DRIVE SPROCKET means the toothed part that drives the saw chain;
31. FRONT HANDLE means the support handle located at or towards the front of the chain saw;
32. GUIDE BAR means the part that supports and guides the saw chain;
33. KICKBACK means the upward and/or backward motion of the guide bar that may occur when the nose of the saw chain, unexpectedly contacts an object;

34. REAR HANDLE means the support handle located at or toward the rear of the chain saw;
35. SAW CHAIN means a loop of chain having cutting teeth that is driven by the motor and is supported by the guide bar;
36. SPIKED BUMPER means a part fixed to the casing, parallel to the guide-bar used as a pivot whilst sawing;
37. MAXIMUM CUTTING LENGTH means the Length of the cutting tool measured from the root of the spiked bumper (spike) and from the tool bumper edge to the foremost edge of the cutter as indicated in Fig. L1.

## 7. MARKING

### 7.1 Addition:

Chain saws shall be marked with:

Maximum cutting length in millimetres as shown in Fig. L1.

Indication of direction of rotation of the chain; the direction of rotation of the chain shall be clearly indicated by an arrow, raised or sunk, or by any other means no less visible and indelible.

In addition, chain saws shall be marked with a warning of the following substance:

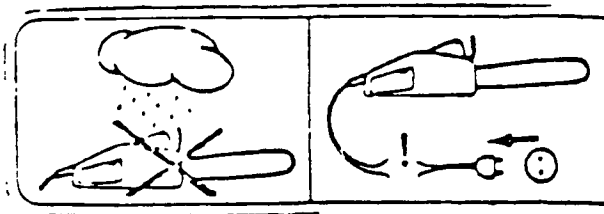
Attention! Do not expose this tool to rain \*) and remove plug from mains immediately if the supply cable be damaged or cut \*)

Said warning shall be given in the official language (s) of the country in which the chain saw is to be sold.

Addition:

For chain saws other than those of the "ordinary" type of protection the first warning need not be marked on the tool itself; for these designs the instructions as given in Sub-clause 7.13 are deemed to be sufficient.

\*) instead of these texts, the following symbols expressing the same meaning may be used.



### 7.13 Addition:

As a part of the user tool and accessories kit, a comprehensive manual shall be provided by the manufacturer.

The manual shall be written in the official language (s) of the country in which the tool is to be sold.

The manual shall include, as a minimum, information under the following headings.

- 1) Identification and nomenclature of parts involved in safety provisions, e.g. chain, guide bar.  
<https://standards.iteh.ai/catalog/standards/sist/e9e79800-4294-4d5a-8d56-650312584834/sist/400-113-1995>
- 2) Assembly instructions (if saw is supplied with loose bar and chain or other parts).
- 3) Adjustments and checks (e.g. chain tension and chain brake functioning).
- 4) Operating instructions including at least the following:
  - Starting and stopping with reference to safety
  - Supply cable, extension cord, type of plug and socket and recommendation for the use of an earth-leakage circuit-breaker or residual current device.
  - Ensuring a stable position of the body.
  - Warning about damp operating conditions.
  - Regular maintenance, replacement, chain sharpening, use of gloves, type of chain.
- 5) Advise on safety clothing, e.g. for eyes, ears, hands, head, body, legs and feet.
- 6) Kickback-causes, effects and safety precautions.

- 7) Holding the saw in use, stance, access to work, cutting height.
- 8) Cutting branches, logging. Supporting the log, effect of sloping ground. Avoidance of cutting into ground, wire fences, cutting saplings. Cutting prepared timber.
- 9) Felling- a short description with illustrations of safe procedures.  
Felling within the capabilities of the saw, undercutting, direction of fall, free access, use of wedges, reference to weather and onlookers and to local by-laws.
- 10) Safe- carrying of the saw.
- 11) A recommendation that a first time user should obtain informed practical instruction in addition to reading the manual carefully and as a minimum, should practice cutting logs on a saw-horse or cradle.
- 12) Explanation of the meaning of the symbols used on the tool.
- 13) Keep children and all other onlookers at a safe distance from the work area.

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### 8. PROTECTION AGAINST ELECTRIC SHOCK

#### Addition:

- 8.6 For chain saws other than those of Class III, handles shall be either of insulating material or of metal having a fixed insulating covering, complying with the requirements of sub-clause 15.3 carried out after the test specified in sub-clause 19.3 for supplementary insulation.

The handles shall be so designed that, when held as in normal use, the risk of any part of a user's hand coming into contact with metal parts which are in electrical contact with the chain is obviated.

Compliance is checked by inspection, and by the tests of sub-clauses 15.3 and 19.3.

Moreover the covering of insulation material of metal handles shall comply with the following test:

A sample of the covered part is conditioned at a temperature of  $70 \pm 2$  °C for 7 days (168 h). After conditioning, the sample is allowed to attain approximately room temperature.



Inspection shall show that the covering has not shrunk to such an extent, that the required insulation is no longer given or that the covering has not peeled off, so that it may move longitudinally.

After this, the sample is maintained for 4 h at temperature of  $-10 \pm 2$  °C.

While still at this temperature, the sample is then subjected, in a device shown in Figure L3, to impact applied by means of a weight "A"; weight A having a mass of 300 g and falling from a height of 350 mm onto a chisel "B" of hardened steel, the edge of which is placed on the sample, as shown in Figure L3

One impact is applied to each place where the covering is likely to be weak or is likely to be damaged in normal use, the distance between the points of impact being at least 10 mm.

After this test, inspection shall show that the covering has not peeled off and an electric strength test is made between metal parts and metal foil wrapped round the covering of the handle shaft.

The test voltage of 2 500 V is applied for 1 min.

During this test, no flashover or breakdown shall occur.

## 10. INPUT AND CURRENT

### 10.1 Modification:

This test is not made.

### 10.2 Modification:

Compliance is checked by measuring the current after the chain saw has been operating for 10 min.

## 11. HEATING

### 11.1 Addition:

The chain saw is operated for 30 min at normal load.

## 16. ENDURANCE