



SLOVENSKI STANDARD

SIST HD 400.3M S2:1995

01-marec-1995

Hand held motor operated tools - Part 2: Particular specifications - Section M: planers (CEE 20 2M:1977, modified)

Hand-held motor operated tools -- Part II: Particular specifications -- Section M: Planers

Handgeführte Elektrowerkzeuge -- Teil II: Besondere Bestimmungen -- Hauptabschnitt M: Hobel

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Outils portatifs à main à moteur -- (Partie II: Règles particulières -- Section M: Rabots

Ta slovenski standard je istoveten z: HD 400.3M S2:1992

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ICS:

25.140.20	Električna orodja	Electric tools
79.120.20	Lesnoobdelovalno orodje	Woodworking tools

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en

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HARMONIZATION DOCUMENT

HD 400.3M S2

DOCUMENT D'HARMONISATION

HARMONISIERUNGSDOKUMENT

February 1992

UDC 621.9-182.4-83:621.313.13

Descriptors: Hand-held motor operated tools, particular requirements on safety, planers

ENGLISH VERSION

HAND-HELD MOTOR OPERATED TOOLS
PART II: PARTICULAR SPECIFICATIONS
SECTION M: PLANERS
(CEE 20-2M:1977, modified)

Outils portatifs à main à moteur
Partie II: Règles particulières
Section M : Rabots
(CEE 20-2M:1977, modifiée)

Handgeführte Elektrowerkzeuge
Teil II: Besondere Bestimmungen
Hauptabschnitt M: Hobel
(CEE 20-2M:1977, modifiziert)

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This Harmonization Document was approved by CENELEC on 1990-12-10. CENELEC members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for implementation of this Harmonization Document on a national level.

Up-to-date lists and bibliographical references concerning national implementation may be obtained on application to the Central Secretariat or to any CENELEC member.

This Harmonization Document exists in three official versions (English, French, German).

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

CENELEC

European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

Central Secretariat: rue de Stassart 35, B-1050 Brussels

FOREWORD

This second edition of the Harmonization Document, which includes amendment A1, has been prepared by the secretariat of CENELEC Technical Committee TC 61F in accordance with the decisions taken by this committee.

HD 400.3M S2 was approved by CENELEC on 28 June 1988. Amendment A1 to this standard was approved on 10 December 1990. The text of the amendment is indicated in this document by a vertical line in the left margin of the text.

The following dates were fixed:

- latest date of announcement
of the HD at national level (doa) 1991-06-01
- latest date of publication of
a harmonized national standard (dop) 1992-08-01
- latest date of withdrawal of
conflicting national standards (dow) 1992-08-01

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For products which have complied with HD 400.3M S1:1981 before 1992-08-01, as shown by the manufacturer or by a certification body, this previous standard may continue to apply for production until 1997-08-01. <https://standards.iteh.ai/catalog/standards/sist/40b8c768-f0e7-4bf6-b181-38c438eb0e3a/sist-hd-400-3m-s2-1995>

This section M of HD 400.3 has to be used together with HD 400.1 S1:1980 and its amendment A1:1991, which are referred to in this document as Part I.

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

- In this document the following print types are used:
- Requirements: xy
 - Test specification: xy
 - Notes: xy
-

1. SCOPE

1.1 Modification:

This section applies to planers.

NOTE: For planers with cutting width more than 150 mm other requirements may be necessary.

2. DEFINITIONS

2.2

8. Addition:

The rated no-load speed is the speed obtained when the planer has been running idle for 10 min.

18. Modification:

Normal load denotes the load obtained when the planer is operated continuously the load being such that the input, in Watts, is equal to rated input.

Addition:

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For tests to be made under normal load the spindle of the motor may be loaded by means of a brake.

Addition:

29. Cutting head denotes the assembly of blades, drums, blade fixing elements, relevant screws and spindle, the whole being ready for working.

7. MARKING

7.1 Addition:

Planers shall be marked with:

- Rated no-load speed, in revolutions per minute, of the cutting head, marked on the nameplate
- Indication of direction of rotation:
The direction of rotation of the cutting head shall be clearly indicated by an arrow, raised or sunk, or by any other means no less visible and indelible.

7.13 Addition:

The planer shall be provided with an instruction sheet in which the substance of the following information shall be contained:

- Instruction for replacement of the blades (adjustment)
- The necessity of the use of sharp blades
- Wait for complete run-down before putting the tool aside
- Types of cutting heads which can be used.

Moreover, if a planer is suitable for, and used in, an inverted position as a stationary machine, the instruction sheet shall contain also the following information:

- Use of the movable guard
- Machining of small work-pieces with push stick
- Disconnection of the tool from mains supply before fitting a planer to a stand for use in the inverted position
- Use of the switch.

Where applicable the instruction sheet shall state how to connect the external suction equipment.

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10. INPUT AND CURRENT

10.1 Modification:

This test is not made.

10.2 Addition:

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

11. HEATING

11.1 Addition:

The planer is operated for 30 min.

18. MECHANICAL HAZARDS

Addition:

18.3
 to

18.6 Reserved.

- 18.7 Cutting heads must have a circular section along the whole cutting width except for the blades, the fixing screws and full chip clearance area.
- 18.8 The blades shall not project by more than 1.1 mm radially beyond the drum (as per dimension "a" in figure M1).

Compliance is checked by measurement.

- 18.9 The maximum chip clearance distance, in mm, to be provided is given by the formula:

$$\text{For } d < 80 \text{ mm} : \\ S_{\text{max}} = 0.235 d + 7.2$$

$$\text{For } d > 80 \text{ mm} : \\ S_{\text{max}} = 0.1 \times d + 18$$

Compliance is checked by measurement.

- 18.10 The distance b (see figure M1) between the rotating circle of the cutting edges and the lips of the adjustable shoe shall not exceed 5 mm, from zero to the maximum adjustable planing depth.

Compliance is checked by measurement and inspection.

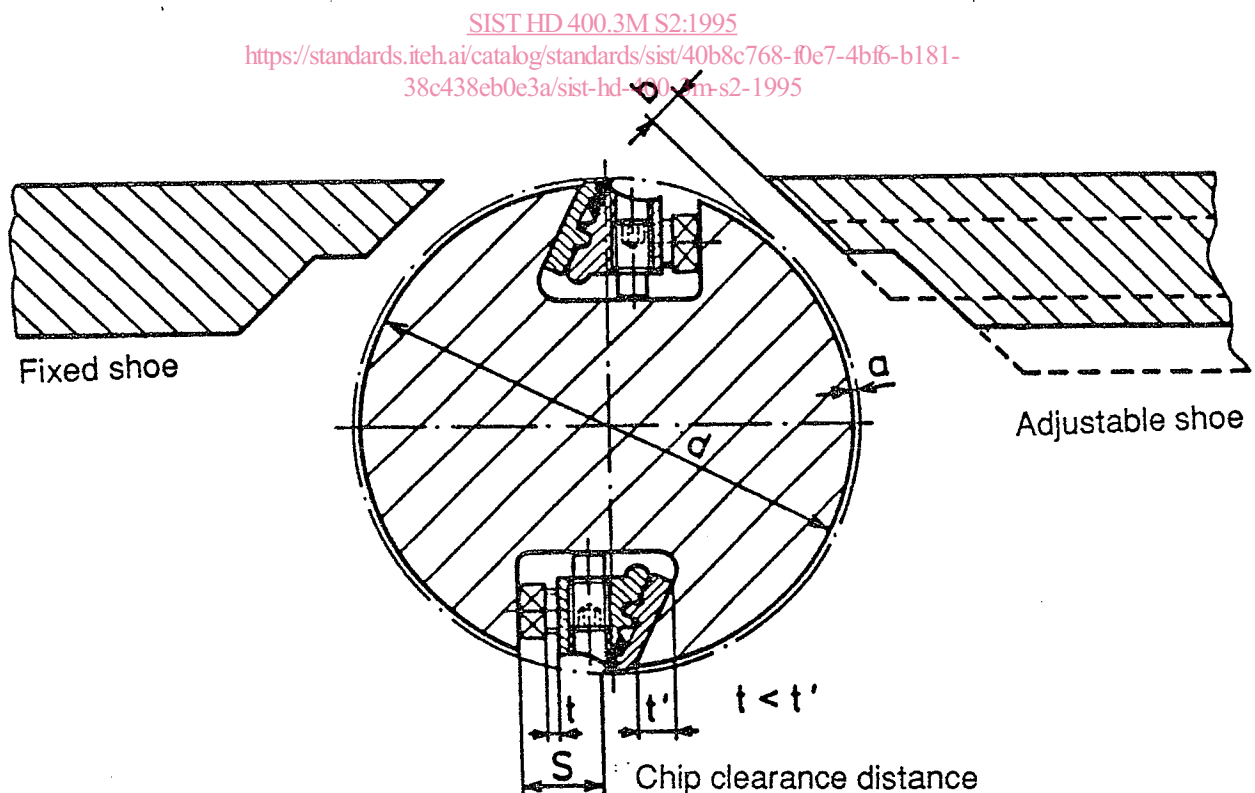


Figure M1

- 18.11 The blades shall be fixed to the drum in such a way that friction alone is not relied upon to prevent ejection of the blades.

The clamping screws if any shall engage for a minimum of five full threads when the blades are fitted to a steel drum.

When the drum is made of a material other than steel the clamping arrangement shall have the same degree of strength etc. as that provided by the requirements for the clamping screws for steel drums.

Compliance is checked by measurement and inspection.

- 18.12 The lock system between drum and blade shall be so designed and made that replacement and adjustment of the blades does not compromise safety.

Compliance is checked by inspection and manual test.

- 18.13 The clamping screws or the blade fixing elements used to clamp the blades on the drum shall be made of steel with a hardness of at least 20 HRC and a tensile strength of at least 800 N/mm².
 The clamping screws or the bolts shall not project above the max. diameter of the drum.

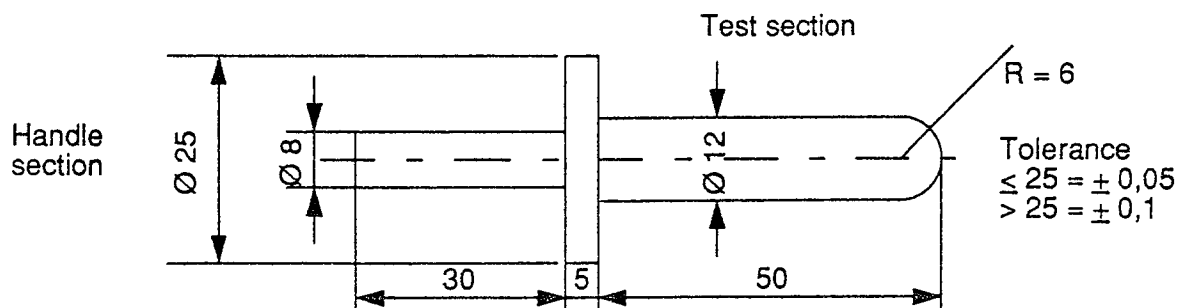
- 18.14 It shall not be possible to touch rotating parts from the sides.

Compliance is checked by the following test:

The planer with the shoe is placed resting on a flat surface and accessibility of rotating parts is checked by means of the test probe as shown in figure M2.

- 18.15 Planers with rabbeting facilities shall be provided with a guard that avoids inadvertent contact with the blades on the side.

Compliance is checked by inspection and applying the test probe of figure M2 without any force.



- 18.16 It shall not be possible to touch the blades through the chip ejection opening.

Compliance is checked by testing all apertures for chip ejection with the test probe of figure M2.

It shall not be possible to touch the blades fo the cutting head at any angle of the probe.

- 18.17 If according to the manufacturer's instructions a planer is suitable for use in an inverted position with an appropriate stand an integrated or additional guard shall be provided, with the stand or with the planer, which covers the cutting head when the planer is not in use.

If a parallel guide is provided its guiding and top surface shall have no openings or projections. Openings the maximum dimension of which is 10 mm are disregarded.

The guard and the parallel guide shall be so designed that for any cutting width the unused part of the cutting head is covered.

The guard provided shall return automatically to the closed position at the end of the planing operation.

Planers provided with an integrated non detachable and non-lockable guard which automatically closes, in the state of rest the cutting head e.g., concentrically and over the whole width, do not need in stationary operation an additional guard to the above described parallel guide.

Examples of parallel guide and guards are given in figure M3.

Any contact between steel and other hard material guards with the blades is to be avoided.

If the guard or parallel guide are designed in such a way that their contact with the cutting head is not avoided, they shall be made of soft material (e.g. wood, plastic material, aluminium).

Compliance is checked by inspection.