

SLOVENSKI STANDARD SIST EN ISO 19085-12:2021

01-julij-2021

Nadomešča:

SIST EN 1218-1:2000+A1:2009 SIST EN 1218-2:2004+A1:2009 SIST EN 1218-5:2004+A1:2009

Lesnoobdelovalni stroji - Varnost - 12. del: Stroji za izdelovanje čepov in utorov/profilni stroji (ISO 19085-12:2021)

Woodworking machines - Safety - Part 12: Tenoning/profiling machines (ISO 19085-12:2021) **iTeh STANDARD PREVIEW**

Holzbearbeitungsmaschinen - Sicherheit - Teil 12: Zapfenschneid- und Schlitzmaschinen / Profiliermaschinen (ISO 19085-12:2010)_{ISO 19085-12:2021}

https://standards.iteh.ai/catalog/standards/sist/30a635b3-3083-4dfe-ab87-

Machines à bois - Sécurité - Partie 12. Machines à tenonner et/ou à profiler (ISO 19085-12:202)

Ta slovenski standard je istoveten z: EN ISO 19085-12:2021

ICS:

13.110 Varnost strojev Safety of machinery79.120.10 Lesnoobdelovalni stroji Woodworking machines

SIST EN ISO 19085-12:2021 en,fr,de

SIST EN ISO 19085-12:2021

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 19085-12:2021 https://standards.iteh.ai/catalog/standards/sist/30a635b3-3083-4dfe-ab87-321e33aa0098/sist-en-iso-19085-12-2021 EUROPEAN STANDARD NORME EUROPÉENNE EUROPÄISCHE NORM EN ISO 19085-12

April 2021

ICS 13.110; 79.120.10

Supersedes EN 1218-1:1999+A1:2009, EN 1218-2:2004+A1:2009, EN 1218-5:2004+A1:2009

English Version

Woodworking machines - Safety - Part 12: Tenoning/profiling machines (ISO 19085-12:2021)

Machines à bois - Sécurité - Partie 12: Machines à tenonner/profiler (ISO 19085-12:2021)

Holzbearbeitungsmaschinen - Sicherheit - Teil 12: Zapfenschneid- und Schlitzmaschinen/Profiliermaschinen (ISO 19085-12:2021)

This European Standard was approved by CEN on 20 December 2020.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the CEN-CENELEC Management Centre or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION COMITÉ EUROPÉEN DE NORMALISATION EUROPÄISCHES KOMITEE FÜR NORMUNG

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

Contents	Page
European foreword	3
Annex ZA (informative) Relationship between this European Standard and the essential	
requirements of Directive 2006/42/EC aimed to be covered	4

iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN ISO 19085-12:2021</u> https://standards.iteh.ai/catalog/standards/sist/30a635b3-3083-4dfe-ab87-321e33aa0098/sist-en-iso-19085-12-2021

European foreword

This document (EN ISO 19085-12:2021) has been prepared by Technical Committee ISO/TC 39 "Machine tools" in collaboration with Technical Committee CEN/TC 142 "Woodworking machines - Safety" the secretariat of which is held by UNI.

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 October 2021, and conflicting national standards shall be withdrawn at the latest by October 2021.

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 supersedes EN 1218-2:2004+A1:2009, EN 1218-1:1999+A1:2009 and EN 1218-5:2004+A1:2009.

This document has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association, and supports essential requirements of EU Directive(s).

For the relationship with EU Directive(s) see informative Annex ZA, which is an integral part of this document.

According to the CEN-CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Republic of North Macedonia, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom.

321e33aa0098/sist-en-iso-19085-12-2021

Endorsement notice

The text of ISO 19085-12:2021 has been approved by CEN as EN ISO 19085-12:2021 without any modification.

Annex ZA

(informative)

Relationship between this European Standard and the essential requirements of Directive 2006/42/EC aimed to be covered

This European standard has been prepared under a Commission's standardisation request "M/396 Mandate to CEN and Cenelec for standardisation in the field of machinery" to provide one voluntary means of conforming to essential requirements of 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 2006/42/EC, 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 that Directive, and associated EFTA regulations.

Table ZA.1 — Correspondence between this European Standard with Annex I of Directive 2006/42/EC

The relevant Essential Requirements of Directive 2006/42/EC	Clauses/sub-clauses of this EN	Remarks/Notes
1.1.2 Principles of safety integration	AKD PKEVIEW	
a) fitted for its function (standa	Clauses 5, 6, 7, 8	
b) eliminate or reduce the risks, give measures, inform	Clauses 5, 6, 7, 8 0 19085-12:2021	,
c) intended use and reasonably foreseeable misuse098/sis	Clauses 5065-7,282021	_
d) constraints in use	7.5, 8.3	
e) equipment	6.1, 8.3	
1.1.3 Materials and products	6.2, 7.3, 7.16	
1.1.4 Lighting	7.6, 8.3	
1.1.5 Design of machinery to facilitate its handling	7.5	
1.1.6 Ergonomics	7.5	
1.1.7 Operating position	5.2	
1.2.1 Safety and reliability of control systems	5.1, 5.6, 5.7, 5.8, 5.9, 5.10, 5.11, 5.12, 5.13, 6.5, 7.7, 7.8	
1.2.2 Control devices	5.2, 5.3, 5.4, 5.6, 5.7	
1.2.3 Starting	5.3	
1.2.4 Stopping	5.4, 5.5, 6.4	
1.2.4.1 Normal stop	5.4.2	
1.2.4.2 Operational stop	5.4.3	
1.2.4.3 Emergency stop	5.4.4	
1.2.5 Selection of control or operating mode	5.6	
1.2.6 Failure of the power supply	5.8, 7.7, 7.8, 7.15	

1.3.1 (task of loss of stability 6.1,8.3	4.0.4.70.1	64.00	
1.3.3 Risks due to falling or ejected objects 6.2,63,65,68,6.9,8.3 1.3.4 Risk due to surfaces, edges or angles Not significant 1.3.6 Risks relating to variations in the operating conditions 5.7 1.3.7 Risks related to moving parts 6.5,66,67,68,8.3 1.3.8 Choice of protection against risks related to moving parts 6.6,67,68 1.3.8.1 Moving transmission parts 6.63,664,6.7 1.3.8.2 Moving parts involved in the process 6.61,6.6.2 1.3.9 Risk of uncontrolled movements 6.1.1 1.4.1 General requirements 6.9 1.4.2.2 Interlocking movable guards 6.5.1 1.4.2.3 Special requirements for protective devices 6.5.3, 6.5.5, 6.5.6 1.5.1 Electricity supply 7.4, 7.3 1.5.2 Static electricity 7.1.1 1.5.3 Energy supply other than electricity 7.1.2 1.5.4 Errors of fitting 8.1.1 Fixed to the protection of the prot	1.3.1 Risk of loss of stability	6.1, 8.3	
1.3.4 Risk due to surfaces, edges or angles Not significant 1.3.6 Risks relating to variations in the operating conditions 5.7 1.3.7 Risks related to moving parts 6.5, 6.6, 6.7, 6.8, 8.3 1.3.8 Choice of protection against risks related to moving parts 6.6, 6.7, 6.8 1.3.8.1 Moving transmission parts 6.6.3, 6.6.4, 6.7 1.3.8.2 Moving parts involved in the process 6.6.1, 6.6.2 1.3.9 Risk of uncontrolled movements 6.1.1 1.4.1 General requirements 6.9 1.4.2.1 Fixed guards 6.5.1 1.4.2.2 Interlocking movable guards 6.5.2 1.4.3 Special requirements for protective devices 6.5.3, 6.5.5, 6.5.6 1.5.1 Electricity supply 74, 713 1.5.2 Static electricity 74, 713 1.5.3 Energy supply other than electricity 74, 713 1.5.5 Extreme temperatures and sich alcoalogistandards 74, 721 1.5.5 Extreme temperatures and sich alcoalogistandards 74, 721 1.5.6 Fire 32 (23) 3000/8 sich electricity 1.5.1 External radiation 7.9 1.5.1.1 External radiation 7.9 1.5.1.2 Laser equipment 7.10 1.5.1.3 Emission of hazardous materials and substances 7			
1.3.6 Risks relating to variations in the operating conditions 5.7 1.3.7 Risks related to moving parts 6.5, 6.6, 6.7, 6.8, 8.3 1.3.8 Choice of protection against risks related to moving parts 6.6, 6.7, 6.8 1.3.8.1 Moving transmission parts 6.6, 6.7, 6.8 1.3.8.2 Moving parts involved in the process 6.6.1, 6.6.2 1.3.9 Risk of uncontrolled movements 6.1.1 1.4.1 General requirements 6.9 1.4.2.1 Fixed guards 6.5.1 1.4.2.2 Interlocking movable guards 6.5.2 1.4.3 Special requirements for protective devices 6.5.3, 6.5.5, 6.5.6 1.5.1 Electricity supply 7.4, 7.13 1.5.2 Static electricity 7.4, 7.13 1.5.3 Energy supply other than electricity and analysis of fitting 7.11 1.5.4 Errors of fitting 7.12 1.5.5 Extreme temperatures nearly sich alcondop standards of 7.38 (1.3) and 4.46-a.b87-a.b.s.s.s.s.s.s.s.s.s.s.s.s.s.s.s.s.s.s.		6.2, 6.3, 6.5, 6.8, 6.9, 8.3	
1.3.7 kisks related to moving parts 6.5, 6.6, 6.7, 6.8, 8.3 1.3.8 Choice of protection against risks related to moving parts 6.6, 6.7, 6.8 1.3.8 Lhoice of protection against risks related to moving parts 1.3.8.1 Moving transmission parts 6.63, 6.64, 6.7 1.3.8.2 Moving parts involved in the process 6.6.1, 6.6.2 1.3.9 Risk of uncontrolled movements 6.1.1 1.4.1 General requirements 6.9 1.4.2.1 Fixed guards 6.5.1 1.4.2 Interlocking movable guards 6.5.2 1.4.3 Special requirements for protective devices 6.5.3, 6.5.5, 6.5.6 1.5.1 Electricity supply 7.1 7.1 1.5.2 Static electricity 7.1 7.1 1.5.3 Energy supply other than electricity 7.1 7.1 1.5.4 Errors of fitting SISTEM ISO 1088 7.2 1.5.5 Extreme temperatures hards behaviorable shadords 7.1 7.1 1.5.6 Fire 32 163 360 0088 set cos of 7.2 7.3 7.1 1.5.1 External radiation 7.9 7.1 1.5.1 Emission of hazardous materials and substances 7.3, 7.16 1.6.1 Machinery maintenance 7.14, 8.3 1.6.2 Access to operating position and servicing points 7.14, 8.3 1.6.3 Cleaning of internal parts 7.14, 8.3 1.6.1 Information and warnings on the machinery 7.10, 8.1, 8.2 1.7.2 Warning devices 8.1 1.7.3 Marking of machinery 8.2 1.7.4 Instructions 8.3 2.3 Machinery for working wood and analogous materials 7.1	1.3.4 Risk due to surfaces, edges or angles		Not significant
1.3.8 Choice of protection against risks related to moving parts 6.6, 6.7, 6.8 1.3.8.1 Moving transmission parts 6.6.3, 6.6.4, 6.7 1.3.8.2 Moving parts involved in the process 6.6.1, 6.6.2 1.3.9 Risk of uncontrolled movements 6.1.1 1.4.1 General requirements 6.9 1.4.2.1 Fixed guards 6.5.1 1.4.2.2 Interlocking movable guards 6.5.2 1.4.3 Special requirements for protective devices 6.5.3, 6.5.5, 6.5.6 1.5.1 Electricity supply 7.11 Fixed parts 1.5.2 Estatic electricity 7.11 Fixed parts 1.5.3 Energy supply other than electricity of parts 7.12 Fixed parts 1.5.4 Errors of fitting SISTEM ISO 1008 1.5.5 Extreme températures ndards ich ni cambos standards sta		5.7	
1.3.8.1 Moving transmission parts 6.6.3, 6.6.4, 6.7 1.3.8.2 Moving parts involved in the process 6.6.1, 6.6.2 1.3.9 Risk of uncontrolled movements 6.1.1 1.4.1 General requirements 6.9 1.4.2.1 Fixed guards 6.5.1 1.4.2.2 Interlocking movable guards 6.5.2 1.4.3 Special requirements for protective devices 6.5.3, 6.5.5, 6.5.6 1.5.1 Electricity supply 1.5.2 Static electricity 1.5.3 Energy supply other than electricity 1.5.4 Errors of fitting 1.5.5 Extreme temperatures roards, iich ai catalog/standards 7.12 1.5.5 Extreme temperatures roards, iich ai catalog/standards 7.15 1.5.8 Noise 7.2 1.5.11 External radiation 7.9 1.5.12 Laser equipment 7.10 1.5.13 Emission of hazardous materials and substances 7.3, 7.16 1.6.1 Machinery maintenance 7.14, 8.3 1.6.2 Access to operating position and servicing points 7.14, 8.3 1.6.3 Isolation of energy sources 7.13, 8.3 1.6.4 Operator intervention 7.14, 8.3 1.6.5 Cleaning of internal parts 7.14, 8.3 1.7.1 Information and warnings on the machinery 7.10, 8.1, 8.2 1.7.2 Warning devices 8.1 1.7.3 Marking of machinery 8.2 1.7.4 Instructions 8.3 2.3 Machinery for working wood and analogous materials	1.3.7 Risks related to moving parts	6.5, 6.6, 6.7, 6.8, 8.3	
1.3.8.2 Moving parts involved in the process 6.6.1, 6.6.2 1.3.9 Risk of uncontrolled movements 6.1.1 1.4.1 General requirements 6.9 1.4.2.1 Fixed guards 6.5.1 1.4.2.2 Interlocking movable guards 6.5.2 1.4.3 Special requirements for protective devices 6.5.3, 6.5.5, 6.5.6 1.5.1 Electricity supply 7.4, 7.13 1.5.2 Static electricity 7.11 1.5.3 Energy supply other than electricity and electricity 7.12 1.5.4 Errors of fitting 81STEN ISO 1008 1.5.5 Extreme temperatures/relards/itech ni/catalog/standards/sc/745/35353-3083-4die-ab87-15.6 Fire 7.12 1.5.6 Fire 321c33au0098/sst-cn-Bo-17.5 - 2021 1.5.8 Noise 7.2 1.5.11 External radiation 7.9 1.5.12 Laser equipment 7.10 1.5.13 Emission of hazardous materials and substances 7.3, 7.16 1.6.1 Machinery maintenance 7.14, 8.3 1.6.2 Access to operating position and servicing points 7.14, 8.3 1.6.4 Operator intervention 7.14, 8.3 1.7.1 Information and warnings on the machinery 7.10, 8.1, 8.2 1.7.2 Warning devices 8.1 1.7.3 Marking of machinery		6.6, 6.7, 6.8	
1.3.9 Risk of uncontrolled movements 6.1.1 1.4.1 General requirements 6.9 1.4.2.1 Fixed guards 6.5.1 1.4.2.2 Interlocking movable guards 6.5.2 1.4.3 Special requirements for protective devices 6.5.3, 6.5.5, 6.5.6 1.5.1 Electricity supply 7.4.7.13 1.5.2 Static electricity 7.4.7.13 1.5.3 Energy supply other than electricity of the state of the st	1.3.8.1 Moving transmission parts	6.6.3, 6.6.4, 6.7	
1.4.2.1 Fixed guards 6.5.1 1.4.2.2 Interlocking movable guards 6.5.2 1.4.3 Special requirements for protective devices 6.5.3, 6.5.5, 6.5.6 1.5.1 Electricity supply 7.4.7.13 1.5.2 Static electricity 7.4.7.13 1.5.3 Energy supply other than electricity of 1.5.3 Energy supply other than electricity of 1.5.4 Errors of fitting 7.4.7.13 1.5.5 Extreme temperatures ndards ich al catalog standards of 1.5.5 Extreme temperatures ndards ich al catalog standards of 1.5.5 Extreme temperatures ndards ich al catalog standards of 1.5.5 Extreme temperatures ndards ich al catalog standards of 1.5.5 Extreme temperatures ndards ich al catalog standards of 1.5.5 In 1.5.8 Noise 7.2 1.5.8 Noise 7.2 1.5.11 External radiation 7.9 1.5.12 Laser equipment 7.10 1.5.13 Emission of hazardous materials and substances 7.3, 7.16 1.6.1 Machinery maintenance 7.14, 8.3 1.6.2 Access to operating position and servicing points 7.14, 8.3 1.6.4 Operator intervention 7.14, 8.3 1.6.5 Cleaning of internal parts 7.14, 8.3 1.7.1 Information and warnings on the machinery 7.10, 8.1, 8.2 1.7.2 Warning devices 8.1 1.7.3 Marking of machinery 8.2 1.7.4 Instructions	1.3.8.2 Moving parts involved in the process	6.6.1, 6.6.2	
1.4.2.1 Fixed guards 6.5.1 1.4.2.2 Interlocking movable guards 6.5.2 1.4.3 Special requirements for protective devices 6.5.3, 6.5.5, 6.5.6 1.5.1 Electricity supply 7.4, 7.13 1.5.2 Static electricity 7.1 1.5.3 Energy supply other than electricity IDATCS. 79,7,811 1.5.4 Errors of fitting SISTEN ISO 1908 (7.4.7.2) 1.5.5 Extreme temperatures relates incharicatalog standards in 7,470 (7.15-635b3-3083-4dic-ab87-4.1.2) 7.1.5.6 Fire 1.5.8 Noise 7.2 1.5.11 External radiation 7.9 1.5.12 Laser equipment 7.10 1.5.13 Emission of hazardous materials and substances 7.3, 7.16 1.6.1 Machinery maintenance 7.14, 8.3 1.6.2 Access to operating position and servicing points 7.14, 8.3 1.6.4 Operator intervention 7.14, 8.3 1.6.5 Cleaning of internal parts 7.14, 8.3 1.7.1 Information and warnings on the machinery 7.10, 8.1, 8.2 1.7.2 Warning devices 8.1 1.7.3 Marking of machinery 8.2 1.7.4 Instructions 8.3	1.3.9 Risk of uncontrolled movements	6.1.1	
1.4.2.2 Interlocking movable guards 1.4.3 Special requirements for protective devices 1.5.1 Electricity supply 1.5.2 Static electricity 1.5.3 Energy supply other than electricity 1.5.4 Errors of fitting 1.5.5 Extreme temperatures and ards itch aicatalog/standard/s 1.5.6 Fire 1.5.6 Fire 1.5.8 Noise 1.5.1 External radiation 1.5.12 Laser equipment 1.5.13 Emission of hazardous materials and substances 1.6.1 Machinery maintenance 1.6.2 Access to operating position and servicing points 1.6.3 Isolation of energy sources 1.6.4 Operator intervention 1.6.5 Cleaning of internal parts 1.7.1 Information and warnings on the machinery 1.7.2 Warning devices 1.7.3 Marking of machinery 1.7.4 Instructions 1.8.3 Machinery for working wood and analogous materials	1.4.1 General requirements	6.9	
1.4.3 Special requirements for protective devices 1.5.1 Electricity supply 1.5.2 Static electricity 1.5.3 Energy supply other than electricity 1.5.4 Errors of fitting 1.5.5 Extreme temperatures ndards itch ai/catalog/standards/ss 7.15.5 Extreme temperatures ndards itch ai/catalog/standards/ss 7.15.6 Fire 1.5.6 Fire 1.5.8 Noise 1.5.1 External radiation 1.5.12 Laser equipment 1.5.13 Emission of hazardous materials and substances 1.6.1 Machinery maintenance 1.6.2 Access to operating position and servicing points 1.6.3 Isolation of energy sources 1.6.4 Operator intervention 1.7.1 Information and warnings on the machinery 1.7.2 Warning devices 1.7.3 Marking of machinery 1.7.4 Instructions 1.8.3 1.7.4 Instructions 1.8.3 1.	1.4.2.1 Fixed guards	6.5.1	
1.5.1 Electricity supply 7.4, 7.13 1.5.2 Static electricity 7.11 EVIEW 1.5.3 Energy supply other than electricity of 7.12 (1.5.3 Energy supply other than electricity of 7.12 (1.5.4 Errors of fitting) 7.12 (1.5.5 Extreme temperatures related in the alectricity of 7.15 (1.5.5 Sb3 - 3083 - 4dic - ab87 - 7.15 (1.5.6 Fire) 1.5.6 Fire 32 (1.5.3 a0098/sst-en-so) 1.5.7 Extreme temperatures related in the alectricity of 7.15 (1.5.2 Extrem	1.4.2.2 Interlocking movable guards	6.5.2	
1.5.2 Static electricity 7.11 1.5.3 Energy supply other than electricity IDL ards. 79.7.81 1.5.4 Errors of fitting SISTEN ISO 1908 S 1.5.5 Extreme temperatures neards, itch ai/catalog/standards/ss 73.15035b3-3083-4dfe-ab87- 1.5.6 Fire 321e33aa0098/sist-en-iso- 1.5.8 Noise 7.2 1.5.11 External radiation 7.9 1.5.12 Laser equipment 7.10 1.5.13 Emission of hazardous materials and substances 7.3,7.16 1.6.1 Machinery maintenance 7.14, 8.3 1.6.2 Access to operating position and servicing points 7.14, 8.3 1.6.3 Isolation of energy sources 7.13, 8.3 1.6.4 Operator intervention 7.14, 8.3 1.6.5 Cleaning of internal parts 7.14, 8.3 1.7.1 Information and warnings on the machinery 7.10, 8.1, 8.2 1.7.2 Warning devices 8.1 1.7.3 Marking of machinery 8.2 1.7.4 Instructions 8.3 2.3 Machinery for working wood and analogous materials	1.4.3 Special requirements for protective devices	6.5.3, 6.5.5, 6.5.6	
1.5.2 Static electricity 7.11 1.5.3 Energy supply other than electricity IDL ards. 79.7.81 1.5.4 Errors of fitting SISTEN ISO 1908 S 1.5.5 Extreme temperatures neards, itch ai/catalog/standards/ss 73.15035b3-3083-4dfe-ab87- 1.5.6 Fire 321e33aa0098/sist-en-iso- 1.5.8 Noise 7.2 1.5.11 External radiation 7.9 1.5.12 Laser equipment 7.10 1.5.13 Emission of hazardous materials and substances 7.3,7.16 1.6.1 Machinery maintenance 7.14, 8.3 1.6.2 Access to operating position and servicing points 7.14, 8.3 1.6.3 Isolation of energy sources 7.13, 8.3 1.6.4 Operator intervention 7.14, 8.3 1.6.5 Cleaning of internal parts 7.14, 8.3 1.7.1 Information and warnings on the machinery 7.10, 8.1, 8.2 1.7.2 Warning devices 8.1 1.7.3 Marking of machinery 8.2 1.7.4 Instructions 8.3 2.3 Machinery for working wood and analogous materials	1.5.1 Electricity supply	7.4, 7.13	
1.5.4 Errors of fitting SIST FN ISO 1908 5 7.12 1.5.5 Extreme temperatures ndards, itch ai/catalog/standards/sta7.15635b3-3083-4dfe-ab87-1.5.6 Fire 321e33aa0098/sist-en-iso-7.15-12-2021 1.5.8 Noise 7.2 1.5.11 External radiation 7.9 1.5.12 Laser equipment 7.10 1.5.13 Emission of hazardous materials and substances 7.3, 7.16 1.6.1 Machinery maintenance 7.14, 8.3 1.6.2 Access to operating position and servicing points 7.14, 8.3 1.6.3 Isolation of energy sources 7.13, 8.3 1.6.4 Operator intervention 7.14, 8.3 1.6.5 Cleaning of internal parts 7.14, 8.3 1.7.1 Information and warnings on the machinery 7.10, 8.1, 8.2 1.7.2 Warning devices 8.1 1.7.3 Marking of machinery 8.2 1.7.4 Instructions 8.3 2.3 Machinery for working wood and analogous materials		7.11	
1.5.5 Extreme temperatures indards itch ai/catalog/standards/si 7:15:35353-3083-4dfc-ab87- 1.5.6 Fire 321e33aa0098/sist-en-iso-7.1 1.5.8 Noise 7.2 1.5.11 External radiation 7.9 1.5.12 Laser equipment 7.10 1.5.13 Emission of hazardous materials and substances 7.3, 7.16 1.6.1 Machinery maintenance 7.14, 8.3 1.6.2 Access to operating position and servicing points 7.14, 8.3 1.6.3 Isolation of energy sources 7.13, 8.3 1.6.4 Operator intervention 7.14, 8.3 1.6.5 Cleaning of internal parts 7.14, 8.3 1.7.1 Information and warnings on the machinery 7.10, 8.1, 8.2 1.7.2 Warning devices 8.1 1.7.3 Marking of machinery 8.2 1.7.4 Instructions 8.3 2.3 Machinery for working wood and analogous materials	1.5.3 Energy supply other than electricity ndards.	53,3.8 ai)	
1.5.6 Fire 321e33aa0098/sst-en-iso 7.1 1.5.8 Noise 7.2 1.5.11 External radiation 7.9 1.5.12 Laser equipment 7.10 1.5.13 Emission of hazardous materials and substances 7.3, 7.16 1.6.1 Machinery maintenance 7.14, 8.3 1.6.2 Access to operating position and servicing points 7.14, 8.3 1.6.3 Isolation of energy sources 7.13, 8.3 1.6.4 Operator intervention 7.14, 8.3 1.6.5 Cleaning of internal parts 7.14, 8.3 1.7.1 Information and warnings on the machinery 7.10, 8.1, 8.2 1.7.2 Warning devices 8.1 1.7.3 Marking of machinery 8.2 1.7.4 Instructions 8.3 2.3 Machinery for working wood and analogous materials 8.3	1.5.4 Errors of fitting SIST EN ISO 19085	7.12	
1.5.8 Noise 1.5.11 External radiation 7.9 1.5.12 Laser equipment 7.10 1.5.13 Emission of hazardous materials and substances 7.3, 7.16 1.6.1 Machinery maintenance 7.14, 8.3 1.6.2 Access to operating position and servicing points 7.14, 8.3 1.6.3 Isolation of energy sources 7.13, 8.3 1.6.4 Operator intervention 7.14, 8.3 1.6.5 Cleaning of internal parts 7.14, 8.3 1.7.1 Information and warnings on the machinery 7.10, 8.1, 8.2 1.7.2 Warning devices 8.1 1.7.3 Marking of machinery 8.2 1.7.4 Instructions 8.3 2.3 Machinery for working wood and analogous materials	1.5.5 Extreme temperatures indards.itch.ai/catalog/standards/si	st 7315 635b3-3083-4dfe-ab87-	
1.5.11 External radiation 7.9 1.5.12 Laser equipment 7.10 1.5.13 Emission of hazardous materials and substances 7.3, 7.16 1.6.1 Machinery maintenance 7.14, 8.3 1.6.2 Access to operating position and servicing points 7.14, 8.3 1.6.3 Isolation of energy sources 7.13, 8.3 1.6.4 Operator intervention 7.14, 8.3 1.6.5 Cleaning of internal parts 7.14, 8.3 1.7.1 Information and warnings on the machinery 7.10, 8.1, 8.2 1.7.2 Warning devices 8.1 1.7.3 Marking of machinery 8.2 1.7.4 Instructions 8.3 2.3 Machinery for working wood and analogous materials	1.5.6 Fire 321e33aa0098/sist-en-iso-	19085-12-2021 7.1	
1.5.12 Laser equipment 7.10 1.5.13 Emission of hazardous materials and substances 7.3, 7.16 1.6.1 Machinery maintenance 7.14, 8.3 1.6.2 Access to operating position and servicing points 7.14, 8.3 1.6.3 Isolation of energy sources 7.13, 8.3 1.6.4 Operator intervention 7.14, 8.3 1.6.5 Cleaning of internal parts 7.14, 8.3 1.7.1 Information and warnings on the machinery 7.10, 8.1, 8.2 1.7.2 Warning devices 8.1 1.7.3 Marking of machinery 8.2 1.7.4 Instructions 8.3 2.3 Machinery for working wood and analogous materials	1.5.8 Noise	7.2	
1.5.13 Emission of hazardous materials and substances 1.6.1 Machinery maintenance 1.6.2 Access to operating position and servicing points 1.6.3 Isolation of energy sources 1.6.4 Operator intervention 1.6.5 Cleaning of internal parts 1.7.1 Information and warnings on the machinery 1.7.2 Warning devices 1.7.3 Marking of machinery 1.7.4 Instructions 2.3 Machinery for working wood and analogous materials	1.5.11 External radiation	7.9	
1.6.1 Machinery maintenance 7.14, 8.3 1.6.2 Access to operating position and servicing points 7.14, 8.3 1.6.3 Isolation of energy sources 7.13, 8.3 1.6.4 Operator intervention 7.14, 8.3 1.6.5 Cleaning of internal parts 7.14, 8.3 1.7.1 Information and warnings on the machinery 7.10, 8.1, 8.2 1.7.2 Warning devices 8.1 1.7.3 Marking of machinery 8.2 1.7.4 Instructions 8.3 2.3 Machinery for working wood and analogous materials	1.5.12 Laser equipment	7.10	
1.6.2 Access to operating position and servicing points 7.14, 8.3 1.6.3 Isolation of energy sources 7.13, 8.3 1.6.4 Operator intervention 7.14, 8.3 1.6.5 Cleaning of internal parts 7.14, 8.3 1.7.1 Information and warnings on the machinery 7.10, 8.1, 8.2 1.7.2 Warning devices 8.1 1.7.3 Marking of machinery 8.2 1.7.4 Instructions 8.3 2.3 Machinery for working wood and analogous materials	1.5.13 Emission of hazardous materials and substances	7.3, 7.16	
1.6.3 Isolation of energy sources 7.13, 8.3 1.6.4 Operator intervention 7.14, 8.3 1.6.5 Cleaning of internal parts 7.14, 8.3 1.7.1 Information and warnings on the machinery 7.10, 8.1, 8.2 1.7.2 Warning devices 8.1 1.7.3 Marking of machinery 8.2 1.7.4 Instructions 8.3 2.3 Machinery for working wood and analogous materials	1.6.1 Machinery maintenance	7.14, 8.3	
1.6.4 Operator intervention 7.14, 8.3 1.6.5 Cleaning of internal parts 7.14, 8.3 1.7.1 Information and warnings on the machinery 7.10, 8.1, 8.2 1.7.2 Warning devices 8.1 1.7.3 Marking of machinery 8.2 1.7.4 Instructions 8.3 2.3 Machinery for working wood and analogous materials	1.6.2 Access to operating position and servicing points	7.14, 8.3	
1.6.5 Cleaning of internal parts 7.14, 8.3 1.7.1 Information and warnings on the machinery 7.10, 8.1, 8.2 1.7.2 Warning devices 8.1 1.7.3 Marking of machinery 8.2 1.7.4 Instructions 8.3 2.3 Machinery for working wood and analogous materials	1.6.3 Isolation of energy sources	7.13, 8.3	
1.7.1 Information and warnings on the machinery 7.10, 8.1, 8.2 1.7.2 Warning devices 8.1 1.7.3 Marking of machinery 8.2 1.7.4 Instructions 8.3 2.3 Machinery for working wood and analogous materials	1.6.4 Operator intervention	7.14, 8.3	
1.7.2 Warning devices 8.1 1.7.3 Marking of machinery 8.2 1.7.4 Instructions 8.3 2.3 Machinery for working wood and analogous materials	1.6.5 Cleaning of internal parts	7.14, 8.3	
1.7.3 Marking of machinery 8.2 1.7.4 Instructions 8.3 2.3 Machinery for working wood and analogous materials	1.7.1 Information and warnings on the machinery	7.10, 8.1, 8.2	
1.7.4 Instructions 8.3 2.3 Machinery for working wood and analogous materials	1.7.2 Warning devices	8.1	
2.3 Machinery for working wood and analogous materials	1.7.3 Marking of machinery	8.2	
materials	1.7.4 Instructions	8.3	
a) guiding 6.10			
	a) guiding	6.10	

b) ejection	6.2, 6.3, 6.5, 6.6, 6.8, 6.9, 8.3	
c) brake	5.5, 6.4	
d) accidental tool contact	8.3	

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.

iTeh STANDARD PREVIEW (standards.iteh.ai)

<u>SIST EN ISO 19085-12:2021</u> https://standards.iteh.ai/catalog/standards/sist/30a635b3-3083-4dfe-ab87-321e33aa0098/sist-en-iso-19085-12-2021 SIST EN ISO 19085-12:2021

INTERNATIONAL STANDARD

ISO 19085-12

First edition 2021-03

Woodworking machines — Safety —

Part 12: **Tenoning/profiling machines**

Machines à bois — Sécurité — Partie 12: Machines à tenonner/profiler

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 19085-12:2021 https://standards.iteh.ai/catalog/standards/sist/30a635b3-3083-4dfe-ab87-321e33aa0098/sist-en-iso-19085-12-2021



iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 19085-12:2021 https://standards.iteh.ai/catalog/standards/sist/30a635b3-3083-4dfe-ab87-321e33aa0098/sist-en-iso-19085-12-2021



COPYRIGHT PROTECTED DOCUMENT

© ISO 2021

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 Email: copyright@iso.org Website: www.iso.org

Published in Switzerland

Co	Contents		
Fore	eword		vi
Intr	oduction		vii
1	Scope		1
2	•	ative references	
3		and definitions	
4		significant hazards	
5		requirements and measures for controls	14
	5.1	Safety and reliability of control systems	14
	5.2	Control devices	14
		5.2.1 General5.2.2 Additional requirements for single end tenoning machines with manual	
		feed sliding table	
		5.2.3 Additional requirements for single end tenoning machines with	
		mechanical feed sliding table	14
		5.2.4 Additional requirements for single end tenoning and/or profiling	
		machines with mechanical feed	
		5.2.5 Additional requirements for double end machines	15
		5.2.6 Additional requirements for angular systems for tenoning and profiling	
	F 2	with mechanical feed ARD PREVIEW Start	15
	5.3	Start 5.3.1 Machines with manual feed 14.0kg at 1	15 1 E
		5.3.1 Machines with manual feed5.3.2 Machines with mechanical feed	15 15
		5.3.3 Laser marking unit	16
	5.4	Safe stops SIST EN ISO 19085-12:2021	16
		5.3.3 Laser marking unit Safe stops	16
		5.4.2 Normal stop 33aa0098/sist-en-iso-19085-12-2021	16
		5.4.3 Operational stop	17
		5.4.4 Emergency stop	
	5.5	Braking function of tool spindles	
	5.6	Mode selection	
		5.6.1 General 5.6.2 Adjustment mode (MODE 2)	
	5.7	Spindle speed changing	
	5.7	5.7.1 Spindle speed changing by changing belts on the pulleys	
		5.7.2 Spindle speed changing by incremental speed change motor	
		5.7.3 Infinitely variable speed by frequency inverter	
	5.8	Failure of any power supply	
	5.9	Manual reset control	
	5.10	Enabling control	
	5.11	Machine moving parts limited speed monitoring	
	5.12 5.13	Time delay Tele-service	
_			
6		requirements and measures for protection against mechanical hazards	
	6.1	Stability	
		6.1.1 Stationary machines 6.1.2 Displaceable machines	
	6.2	Risk of break-up during operation	
	6.3	Tool holder and tool design	
	3.5	6.3.1 General	
		6.3.2 Spindle locking	
		6.3.3 Circular saw blade fixing devices	
		6.3.4 Flange dimensions for circular saw blades	20

		6.3.5 Spindle rings	20
	6.4	Braking	
		6.4.1 Braking of tool spindle	
		6.4.2 Maximum run-down time	
		6.4.3 Brake release	
	6.5	Safeguards	21
		6.5.1 Fixed guards	
		6.5.2 Interlocking moveable guards	
		6.5.3 Hold-to-run control	
		6.5.4 Two hand control	
		6.5.5 Electro-sensitive protective equipment (ESPE)	22
		6.5.6 Pressure sensitive protective equipment (PSPE)	
	6.6	Prevention of access to moving parts	22
		6.6.1 General	
		6.6.2 Guarding of tools	22
		6.6.3 Guarding of drives	
		6.6.4 Guarding of shearing and/or crushing zones	28
	6.7	Impact hazard	33
	6.8	Clamping devices	
		6.8.1 Single end tenoning machines with sliding table	
		6.8.2 Machines other than single end tenoning machines with sliding table	
	6.9	Measures against ejection	
		6.9.1 General	34
		6.9.2 Guards materials and characteristics	
		6.9.3 Devices to minimize the possibility or effect of ejection or kickback	34
	6.10	Work-piece support and guides	36
		6.10.1 Single end tenoning machines with sliding table	36
		6.10.2 Single end tenoning and/or profiling machines with mechanical feed	36
		6.10.3 Double end tenoning and or profiling machines with mechanical feed	37
		6.10.4 Angular systems for tenoning and profiling with mechanical feed	37
		6.10.5 Work-piece returner3200098/sist-en-iso-19085-12-2021	37
_			
7	Safet	v requirements and measures for protection against other hazards	
7		y requirements and measures for protection against other hazards Fire	38
7	7.1	Fire	38
7		FireNoise	38 38
7	7.1	Fire	38 38 39
7	7.1 7.2	Fire Noise 7.2.1 Noise reduction at the design stage 7.2.2 Noise emission measurement	38 39 39 39
7	7.1 7.2 7.3	Fire Noise 7.2.1 Noise reduction at the design stage 7.2.2 Noise emission measurement Emission of chips and dust	38 39 39 39 39
7	7.1 7.2	Fire Noise 7.2.1 Noise reduction at the design stage 7.2.2 Noise emission measurement Emission of chips and dust Electricity	38 38 39 39 39 39 39
7	7.1 7.2 7.3	Fire Noise 7.2.1 Noise reduction at the design stage 7.2.2 Noise emission measurement Emission of chips and dust Electricity 7.4.1 General	38 38 39 39 39 39 39 39
7	7.1 7.2 7.3	Fire Noise 7.2.1 Noise reduction at the design stage 7.2.2 Noise emission measurement Emission of chips and dust Electricity 7.4.1 General 7.4.2 Displaceable machines	38 38 39 39 39 39 39 39
7	7.1 7.2 7.3 7.4	Fire Noise 7.2.1 Noise reduction at the design stage 7.2.2 Noise emission measurement Emission of chips and dust Electricity 7.4.1 General 7.4.2 Displaceable machines Ergonomics and handling	38 38 39 39 39 39 39 39 39
7	7.1 7.2 7.3 7.4	Fire Noise 7.2.1 Noise reduction at the design stage 7.2.2 Noise emission measurement Emission of chips and dust Electricity 7.4.1 General 7.4.2 Displaceable machines Ergonomics and handling Lighting	38 38 39 39 39 39 39 39 39 40
7	7.1 7.2 7.3 7.4 7.5 7.6	Fire Noise 7.2.1 Noise reduction at the design stage 7.2.2 Noise emission measurement Emission of chips and dust Electricity 7.4.1 General 7.4.2 Displaceable machines Ergonomics and handling Lighting Pneumatics	38 38 39 39 39 39 39 39 39 40
7	7.1 7.2 7.3 7.4 7.5 7.6 7.7	Fire Noise 7.2.1 Noise reduction at the design stage 7.2.2 Noise emission measurement Emission of chips and dust Electricity 7.4.1 General 7.4.2 Displaceable machines Ergonomics and handling Lighting Pneumatics Hydraulics	38 38 39 39 39 39 39 39 39 40 40
7	7.1 7.2 7.3 7.4 7.5 7.6 7.7 7.8	Fire Noise 7.2.1 Noise reduction at the design stage 7.2.2 Noise emission measurement Emission of chips and dust Electricity 7.4.1 General 7.4.2 Displaceable machines Ergonomics and handling Lighting Pneumatics Hydraulics Electromagnetic compatibility	38 38 39 39 39 39 39 39 40 40 40
7	7.1 7.2 7.3 7.4 7.5 7.6 7.7 7.8 7.9	Fire Noise 7.2.1 Noise reduction at the design stage 7.2.2 Noise emission measurement Emission of chips and dust Electricity 7.4.1 General 7.4.2 Displaceable machines Ergonomics and handling Lighting Pneumatics Hydraulics Electromagnetic compatibility Laser	38 38 39 39 39 39 39 39 40 40 40
7	7.1 7.2 7.3 7.4 7.5 7.6 7.7 7.8 7.9 7.10	Fire Noise 7.2.1 Noise reduction at the design stage 7.2.2 Noise emission measurement Emission of chips and dust Electricity 7.4.1 General 7.4.2 Displaceable machines Ergonomics and handling Lighting Pneumatics Hydraulics Electromagnetic compatibility Laser Static electricity	38 38 39 39 39 39 39 39 40 40 40 40
7	7.1 7.2 7.3 7.4 7.5 7.6 7.7 7.8 7.9 7.10 7.11	Fire Noise 7.2.1 Noise reduction at the design stage 7.2.2 Noise emission measurement Emission of chips and dust Electricity 7.4.1 General 7.4.2 Displaceable machines Ergonomics and handling Lighting Pneumatics Hydraulics Electromagnetic compatibility Laser	38 38 39 39 39 39 39 39 40 40 40 40 40 40
7	7.1 7.2 7.3 7.4 7.5 7.6 7.7 7.8 7.9 7.10 7.11 7.12	Fire Noise 7.2.1 Noise reduction at the design stage 7.2.2 Noise emission measurement Emission of chips and dust Electricity 7.4.1 General 7.4.2 Displaceable machines Ergonomics and handling Lighting Pneumatics Hydraulics Electromagnetic compatibility Laser Static electricity Errors of fitting	38 38 39 39 39 39 39 39 40 40 40 40 40 40 40
7	7.1 7.2 7.3 7.4 7.5 7.6 7.7 7.8 7.9 7.10 7.11 7.12 7.13	Fire Noise 7.2.1 Noise reduction at the design stage 7.2.2 Noise emission measurement Emission of chips and dust Electricity 7.4.1 General 7.4.2 Displaceable machines Ergonomics and handling Lighting Pneumatics Hydraulics Electromagnetic compatibility Laser Static electricity Errors of fitting Isolation	38 38 39 39 39 39 39 39 40 40 40 40 40 40 40 41
7	7.1 7.2 7.3 7.4 7.5 7.6 7.7 7.8 7.9 7.10 7.11 7.12 7.13 7.14	Fire	38 38 39 39 39 39 39 39 40 40 40 40 40 40 41 41
	7.1 7.2 7.3 7.4 7.5 7.6 7.7 7.8 7.9 7.10 7.11 7.12 7.13 7.14 7.15 7.16	Fire	38 38 39 39 39 39 39 39 40 40 40 40 40 40 41 41
7	7.1 7.2 7.3 7.4 7.5 7.6 7.7 7.8 7.9 7.10 7.11 7.12 7.13 7.14 7.15 7.16 Information	Fire	38 38 39 39 39 39 39 39 40 40 40 40 40 41 41 41
	7.1 7.2 7.3 7.4 7.5 7.6 7.7 7.8 7.9 7.10 7.11 7.12 7.13 7.14 7.15 7.16 Information	Fire	38 38 39 39 39 39 39 39 40 40 40 40 40 41 41 41
	7.1 7.2 7.3 7.4 7.5 7.6 7.7 7.8 7.9 7.10 7.11 7.12 7.13 7.14 7.15 7.16 Information	Fire	38 38 39 39 39 39 39 39 40 40 40 40 40 41 41 41 41
	7.1 7.2 7.3 7.4 7.5 7.6 7.7 7.8 7.9 7.10 7.11 7.12 7.13 7.14 7.15 7.16 Information	Fire	38 38 39 39 39 39 39 39 40 40 40 40 40 41 41 41 41 41

8.3	Instruction handbook	42
	8.3.1 General	42
	8.3.2 Additional information	
Annex A (in	formative) Performance levels required	44
Annex B (no	ormative) Tests for braking function	46
Annex C (no	ormative) Stability test for displaceable machines	47
Annex D (no	ormative) Impact test for guards	48
	ormative) Noise emission measurement for single end profiling machines	
(not	in ISO 7960:1995)	49
Bibliograph	17	53

iTeh STANDARD PREVIEW (standards.iteh.ai)

SIST EN ISO 19085-12:2021 https://standards.iteh.ai/catalog/standards/sist/30a635b3-3083-4dfe-ab87-321e33aa0098/sist-en-iso-19085-12-2021

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. (Standards.iteh.ai)

This document was prepared by Technical Committee ISO/TC 39, *Machine tools*, Subcommittee SC 4, *Woodworking machines*, in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 142, *Woodworking machines* Safety in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This document is intended to be used in conjunction with ISO 19085-1:2017, which gives requirements common to different machine types.

A list of all parts in the ISO 19085 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

The ISO 19085 series of International Standards provides technical safety requirements for the design and construction of woodworking machinery. It concerns designers, manufacturers, suppliers and importers of the machines specified in the Scope. It also includes a list of informative items that the manufacturer will need to give to the user.

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.

The full set of requirements for a particular type of woodworking machine are those given in the part of ISO 19085 applicable to that type, together with the relevant requirements from ISO 19085-1:2017, to the extent specified in the Scope of the applicable part of ISO 19085.

As far as possible, in parts of ISO 19085 other than ISO 19085-1:2017, safety requirements are referenced to the relevant sections of ISO 19085-1:2017, to avoid repetition and reduce their length. The other parts contain replacements and additions to the common requirements given in ISO 19085-1:2017.

Thus, <u>Clauses 5, 6, 7</u> and 8 with their subclauses and the annexes of this document can either

- confirm as a whole,(standards.iteh.ai)
- confirm with additions,
 SIST EN ISO 19085-12:2021
- exclude in total https://standards.iteh.ai/catalog/standards/sist/30a635b3-3083-4dfe-ab87-321e33aa0098/sist-en-iso-19085-12-2021
- replace with specific text

the corresponding subclauses or annexes of ISO 19085-1:2017.

This interrelation is indicated in the first paragraph of each subclause or annex right after the title by one of the following statements:

- "ISO 19085-1:2017, [subclause/Annex], applies.";
- "ISO 19085-1:2017, [subclause/Annex], applies with the following additions." or "ISO 19085-1:2017, [subclause/Annex], applies with the following additions, subdivided into further specific subclauses.";
- "ISO 19085-1:2017, [subclause/Annex], does not apply.";
- "ISO 19085-1:2017, [subclause/Annex], is replaced by the following text." or "ISO 19085-1:2017, [subclause/Annex], is replaced by the following text, subdivided into further specific subclauses.".

Specific subclauses and annexes in this document without correspondent in ISO 19085-1:2017 are indicated by the introductory sentence: "Subclause/Annex specific to this document.".

<u>Clauses 1</u>, <u>2</u> and <u>4</u> replace the correspondent clauses of ISO 19085-1:2017, with no need for indication since they are specific to each part of the series.

NOTE Requirements for tools are given in EN 847-1:2017 and EN 847-2:2017. Requirements for tool clamping devices are given in EN 847-3:2013.