COUNCIL OF EUROPE

COMMITTEE OF MINISTERS

(PARTIAL AGREEMENT IN THE SOCIAL AND PUBLIC HEALTH FIELD)

RESOLUTION AP (74) 5

CONCERNING THE CONSTRUCTION AND USE OF CERTAIN WOODSAWING MACHINES

(Adopted by the Committee of Ministers on 27 March 1974 at the 230th meeting of the Ministers' Deputies)

The Representatives on the Committee of Ministers of Belgium, France, the Federal Republic of Germany, Italy, Luxembourg, the Netherlands, the United Kingdom of Great Britain and Northern Ireland, whose governments are parties to the Partial Agreement in the social and public health field, and the Representative of Austria, whose government has participated in the activities of the Social Committee of the above-mentioned Partial Agreement since 19 October 1965 and in those of the two Sub-Committees on Industrial Safety and Health (engineering questions and chemical questions) since 4 April and 9 May 1967 respectively,

1. Having regard to the recommendation concerning the construction and use of certain woodsawing machines, adopted by the Partial Agreement Social Committee on 19 October 1973;

2. Considering that, under the terms of its Statute, the aim of the Council of Europe is to achieve a greater unity between its Members for the purpose of safeguarding and realising the ideals and principles which are their common heritage and facilitating their economic and social progress;

3. Having regard to the provisions of the Brussels Treaty, signed on 17 March 1948, by virtue of which Belgium, France, Luxembourg, the Netherlands and the United Kingdom of Great Britain and Northern Ireland declared themselves resolved to strengthen the social ties by which they were already united;

4. Having regard to the Protocol modifying and completing the Brussels Treaty, signed on 23 October 1954 by the signatory states of the Brussels Treaty, on the one hand, and the Federal Republic of Germany and Italy, on the other hand;

5. Observing that the seven governments parties to the Partial Agreement which have resumed, within the Council of Europe, the social work hitherto undertaken by the Brussels Treaty Organisation and then by Western European Union (which derived from the Brussels Treaty as modified by the Protocol mentioned at paragraph 4 above) as well as the Government of Austria, which participates in the activities of the Partial Agreement Social Committee and of its two above-mentioned sub-committees, have always endeavoured to be in the forefront of progress in social matters and have for many years undertaken action towards harmonisation of their legislation;

6. Taking into account the rights and principles set out in the European Social Charter (done at Turin, 18 October 1961);

7. Considering that safeguarding the health and safety of workers is an important element of social progress;

8. Believing that encouragement should be given to the use of protective methods of the highest practicable standards in order to ensure the best techniques in the safeguarding of tools and of the workers using them,

I. Recommend that the seven governments parties to the Partiel Agreement and that of Austria should bring their regulations concerning the construction and use of certain woodsawing machines into conformity with the following provisions, each government remaining free to impose stricter regulations;

II. Invite the said governments to keep the Secretary General fully informed every five years of the action taken by them with regard to the present resolution.

PROVISIONS CONCERNING THE CONSTRUCTION AND USE OF CERTAIN WOODSAWING MACHINES

L A Y - O U T

1st part - General

Chapter 1 - Scope, definitions and exceptions

1. Scope

These recommendations apply to woodsawing machines of the following general types :

a. sawing machines with reciprocating tool;
b. sawing machines with continuous tool; and
c. sawing machines with rotating tool.

2. Definitions

a. Sawing machines with reciprocating tool are machines having straight saw blades which have a continuous row of teeth, usually only along one of the long sides. Cutting is performed by the reciprocating movement of the saw blade.

b. Sawing machines with continuous tool are machines having an endless band with a continuous row of teeth along one edge, carried over wheels arranged on one plane.

c. Sawing machines with rotating tool include all types of circular saws. On these machines the cutting tool consists of a circular plate with teeth continuously around the rim.

d. The term "cross cutting" means sawing across the grain of the wood and the term "ripping" means sawing along the grain of the wood.

3. Exceptions

These recommendations do not apply to

a. portable sawing machines when not used in a fixed position, and

b. machines on which woodworking tools additional to those used for sawing can be mounted, for instance, universal woodworkers and tenoning machines,

c. operations in which the saw does not cut the timber into two separate pieces.

2nd part - Construction and installation

Chapter 2 - General

Materials and design

4.1 Every machine and all its working parts, guards and other safety devices shall be of good construction, sound material and adequate strength for the purpose for which they are designed.

4.2 Every machine shall be so designed and installed as to ensure that it remains stable when in use.

4.3 Noise and vibration generated when a machine is in motion shall be reduced so far as practicable in order to avoid injury or risk of damage to the health of the worker.

4.4 In order to eliminate a possible cause of fire, every electric motor shall be either situated or protected so that it will not become overheated due to blanketing by sawdust. Any protection for that purpose shall be of non-combustible material and shall not interfere with the normal ventilation of the motor.

Electrical equipment

4.5 The electrical equipment of the machines shall comply with the appropriate electrotechnical requirements and regulations, taking into account the actual working conditions.

Driving mechanisms and ancillary equipment

4.6 All moving parts of machines such as flywheels, pulleys and belts, chain wheels and chains, gears and shafts shall be effectively guarded. Projecting parts on machine mechanisms such as screws, wedges and bolts which might cause an accident shall be effectively guarded.

4.7 Ancillary equipment of machines and parts of machines which need maintenance or adjustment shall be accessible easily and without danger.

Mechanical devices for feeding material

4.8.1 Log carriages shall be provided with efficient devices to hold the log securely. These carriages shall also be fitted with a protective device in the dangerous area between the wheels and the rails, unless these dangerous areas are sufficiently guarded by the construction of the log carriage.

4.8.2 Hand-operated carriages shall be equipped with suitable handles. Travelling carriages, carriages, rolling tables, mobile platforms and other types of feeding equipment shall be effectively restrained in their correct position in relation to their guides. Effective guards shall be provided at places where trapping may occur.

4.9 When necessary, to prevent risk, feed rollers shall be effectively guarded.

Guards

4.10 Guards shall ensure that access to the dangerous parts is prevented so far as practicable. They shall be securely fixed in place and shall, so far as practicable, require the use of tools to remove them. They shall, so far as practicable, form an integral part of the machine and shall interfere to the minimum extent possible with the operation and maintenance of the machine.

Dust

4.11.1 Woodsawing machines shall be equipped with an effective dust extraction device or be so designed that they may be connected to such a device.

4.11.2 Effective measures shall be taken to prevent electrostatic discharge from plastic ventilating ducts.

Controls - General

4.12.1 Individual starting and stopping devices shall be provided for every sawing machine.

4.12.2 In the case of a machine driven by an individual electric motor, the switches for the motor shall be accepted as the starting and stopping devices for the machine.

4.12.3 Where a sawing machine is equipped with several blades operated by individual electric motors, the machine shall have a switch allowing all the blades to be stopped simultaneously.

4.12.4 Individual starting and stopping devices and switches shall be so located as to permit easy and safe operations by the person operating the machine. They shall be reliable in operation and be so designed that the machine cannot be started unintentionally.

4.12.5 Pedal controls shall be guarded to prevent accidental operation.

Speeds of saw blades

4.13 Where a saw blade (or saw blades) can be operated at more than one speed, instructions for changing the speed shall be provided by means of a durable notice which can easily be read at the operating point of the machine.

Controls - Non-manual devices for feeding material

4.14.1 Individual starting and stopping devices shall be provided for every non-manual device for feeding material. These devices shall meet the requirements laid down in paragraph 4.12.4 above.

4.14.2 Where more than one person is employed in the operation of the machine, it shall be possible to stop the non-manual feeding device at each work place and by this action to prevent it from being restarted.

4.14.3 Where a non-manual feeding device is provided with a separate starting device for each worker, it shall not be possible to start it unless all the starting devices are operated at the same time.

4.14.4 Rails or ropes along the length of the machine and connected to a stopping device may be used on long machines to permit the non-manual feeding device to be stopped from every position where persons might have to work.

Marking of machines

4.15 Every new woodsawing machine shall have a plate attached to it by its manufacturer containing the following information in a clear and ineffaceable form :

a. name of manufacturer,
b. year of manufacture,
c. manufacturer's serial number (or other reference) and type (or model).

Instruction manuals

4.16 Every new woodsawing machine shall, where necessary, be accompanied by a handbook stating, amongst other things, the safety precautions to be observed when the machine is being used and the instructions for fitting, removing and using any guards.

Chapter 3 - Safeguards on sawing machines with reciprocating tool

Frame sawing machines

5.1 Effective arrangements shall be provided on frame sawing machines to ensure that the frame cannot move out of its guides and to prevent uncontrolled movement of the connecting rod if it breaks or becomes disconnected from the frame.

5.2 Counterbalance weights of vertical frame sawing machines shall be effectively guided and guarded throughout their travel. The movement of the counterbalance weights shall be limited to their working travel.

5.2.1 Every vertical frame sawing machine shall be provided with an effective brake, which can be locked to hold the frame in any desired position.

5.2.2 Every vertical frame sawing machine shall also be provided with an efficient device to lock the frame in the raised position and to prevent the accidental starting of the machine.

5.2.3 Every vertical frame sawing machine which is driven by a mechanism from the lower floor shall be provided also at that floor with a device as described in 5.2.2 above.

This device shall be interlocked with the guards for the driving mechanism so that i. the guards cannot be opened until the frame is locked and ii. it shall not be possible for the frame to be unlocked unless the guards are again in place.

5.2.4 Pressure rollers of vertical sawing machines shall be equipped with a locking device to prevent them from falling down.

5.2.5 Every vertical frame sawing machine shall be provided with effective means of preventing workpieces or parts of them from entering the space between the lower feed rollers.

Chapter 4 - Safeguards on sawing machines with a continuous tool

6.1 Spoked saw wheels shall be completely encased. Saw wheels which are plated or disced shall either be completely encased or protected so that they are not accessible.

Log band sawing machines and band resawing machines

6.2.1 On every log band sawing machine and band resawing machine, the part of the saw blade which is not used for cutting shall be enclosed :

- on log band sawing machines the working part of the blade shall, if practicable, be rendered inaccessible by means of an automatic guard, if not by a guard which can be adjusted by hand at the height of the logs which are to be cut;

- on band resawing machines the working part of the blade shall be rendered inaccessible either by the way in which such machines are designed or by means of an appropriate guard.

6.2.2 Log band sawing machines and band resawing machines shall be provided with an efficient brake which shall operate progressively.

Table band sawing machines

6.3 Saw wheels of table band sawing machines shall be so enclosed that sufficient protection is ensured if the blade breaks or runs off.

6.3.1 On table band sawing machines, the part of the saw blade which is not used for cutting shall be enclosed. The part of the saw blade which is used for cutting shall be effectively guarded, either by a guard which is adjusted according to the height of the workpiece or by an automatic guard. Any guard which is adjustable according to the height of the workpiece shall be connected to and move with the upper blade guide and shall ensure effective protection. Any automatic guard shall be lifted by the workpiece and shall not expose any part of the saw blade which is not used for cutting. At the end of the cut,the guard shall automatically return to the guarding position. The guard shall not impede the operator's view of the blade as it enters the workpiece. It shall not be possible for the upper blade guide accidently to move downwards.

6.3.2 Every table band sawing machine with pulleys exceeding 350 mm in diameter or which is driven by a motor in excess of 2 horse power, shall be equipped with an effective brake which shall come into operation progressively.

6.4 A guard shall not be required if the working part of the saw blade is rendered inaccessible by the use of an automatic feeding device or a moving feed table.

Chapter 5 - Safeguards on sawing machines with a rotating tool

7.1 General requirements

Marking of the machine

7.1.1 A plate shall be fixed in a permanent position on every sawing machine with a rotating tool in which the following information shall be given in a durable manner and so that it can easily be read :

a. the largest diameters of the saw blade which can properly be used on the machine;
b. the appropriate saw speeds; and
c. if the machine is driven by an individual motor, the rated horse power of the motor.

Guarding for the teeth of circular saw blades

7.1.2 Circular sawing machines shall be provided with guards which will prevent access to the teeth of the saw blade other than those which are cutting. The guard for the teeth below the saw bench shall not obstruct the discharge of sawdust. The guard for the teeth on the top of the blade (hood guard) shall be fixed so that it cannot come into contact with the blade. The guard shall not hinder the feeding or removal of the work. Any openings in the peripheral or side members of a hood guard shall not exceed 8 mm in diameter. Any hood guard which is raised by the workpiece as it is fed to the blade shall return to its original position immediately after the workpiece has passed. If the material from which a hood guard is made is such that any contact with the saw blade is liable to give rise to danger, the guard shall be lined with a material which will prevent this risk. The smallest and largest diameters of saw blades for which a hood guard can properly be used, together with the name of the maker and the year of manufacture, shall be indicated on the guard.

7.1.3 If it is not possible to use a hood guard, an extended riving knife shall be provided to protect the teeth on the top of the saw blade.

7.1.4 As far as practicable, a hood guard shall be designed so that it does not obscure the view of the point of entry of the saw teeth into the workpiece. A hood guard shall be so designed that it can remain in place when the saw blade is changed; this is not applicable to 7.1.7.

Non-kick-back devices

Riving knife

7.1.5 When sawing machines with a rotating tool are used for ripping, they shall be provided with a device which will prevent a workpiece being thrown back by the saw blade. If a riving knife - which also gives protection against injury by the ascending part of the saw blade - is used for this purpose, the riving knife shall be in the same plane as the saw blade and shall be fixed so that it cannot tilt into the blade. The riving knife shall, so far as practicable, be capable of adjustment to follow the arc of the saw blade and shall be easily replaceable; it shall be made of a material that does not allow a distortion of the riving knife. When used with a parallel saw blade it shall be slightly thicker than the saw plate and slightly thinner than the kerf. The riving knife shall be tapered towards its front edge, which shall be rounded and not sharpened; the upper end shall be rounded and the sides smooth and regular. It shall not be possible to replace or readjust a riving knife except by means of tools.

7.1.6 Each circular sawing machine shall have a support on which the riving knife can be securely fixed so that it cannot be deflected during a cut. The support shall be of sufficient size and suitably designed to enable the riving knife to be correctly adjusted to any size of saw blade within the range of sizes that may be used on the machine. If either the table or the saw blade is moveable, the protection afforded by the riving knife shall be ensured on every position.

7.1.7 If the riving knife is also used to support the hood guard referred to in clause 7.1.2, it shall be designed so that it can adequately perform this additional duty. A riving knife shall not be used to support a hood guard on a circular sawing machine on which the diameter of the saw blade exceeds 450 mm.

7.1.8 There shall be clearly indicated on each riving knife the thickness of the knife and the diameter of the saw blades with which it may properly be used.

Anti-kick-back device (fingers)

7.1.9 Each individual element (finger) shall be not more than 10 mm in width. The elements shall form a continuous curtain and shall be maintained in an effective position. The elements shall be designed and maintained so that they can be easily lifted by the workpiece and shall return of their own accord when the workpiece has passed. The anti-kick-back device shall be effective for the maximum thickness of workpieces.

Guarding against ejected material

7.1.10 Circular saws with automatic feeds, automatic ripping saws or multi-blade circular sawing machines shall be provided with suitable devices to contain, so far as practicable, any material accidentally ejected by the machine. Every such device shall extend for not less than the width of the pressure rollers of the machine and shall extend sufficiently to contain material ejected sideways from the machine.

7.2 Single blade stroke circular sawing machines for cross cutting

7.2.1 The travel of saw blades, the tool stroke of which is arquate or in a straight line shall be limited so that the saw blade cannot project beyond the front edge of the support for the workpieces. After each stroke the saw shall return automatically to the fully retracted position and shall, if practicable, be retained in this position by a suitable catch or magnetic, hydraulic, pneumatic locking device.

7.2.2 When the saw blade is in its retracted position, it shall be covered completely.

7.2.3 It shall not be possible for the saw blade to move accidentally from its retracted position.

7.2.4 The saw blade of every sawing machine with the axis of articulation above or below the workpiece shall, where practicable, be provided with an effective guard for the part of the saw blade which projects above or below the support of the workpiece.

7.2.5 Single blade stroke sawing machines shall, if practicable, be provided with a stop against which the workpiece can be held firmly during the cut.

7.3 Automatic single blade stroke circular sawing machines for ripping

7.3.1 Automatic single blade stroke circular sawing machines for ripping on which the saw blade shaft moves either horizontally or vertically during the cut shall be provided either with a hood guard which covers the full extent of the saw travel - this may form part of the clamping beam for the workpiece - or with a hood guard supported by the riving knife. If neither of these types of guard can be used, the riving knife shall be extended sufficiently to protect the teeth on the top of the saw blade. In the starting position the saw blade shall be guarded.

7.3.2 If the saw blade of an automatic single blade stroke circular sawing machine can be lowered below the workpiece for the return stroke, an effective guard shall be provided for the saw blade when it rises to start a cutting stroke. The saw blade shall after each sawing process automatically return to its initial position.

7.3.3 Every automatic panel saw shall be provided with an adjustable stop for the side and end of the workpiece. It shall be possible to adjust it to the width of the workpiece which shall be given a secure hold by it.

7.3.4 If the workpiece is held in its position by hydraulic or pneumatic pressure, a device shall check or cut off the automatic advance of the saw blade, if the pressure of the hydraulic or pneumatic supply is too low to guarantee a secure fixation of the workpiece.

7.3.5 The controls of automatic single blade stroke circular sawing machines for ripping, whose saw blade shaft moves either horizontally or vertically during the cut, shall be arranged to prevent accidental starting and shall include an emergency cut-out device.

7.4 Single blade non-stroke circular sawing machines

7.4.1 Table circular sawing machines for ripping and cross-cutting

7.4.1.1 A hood guard as prescribed by 7.1.2 shall either be adjustable to suit the thickness of the workpiece or shall be designed so that it is lifted by the workpiece during feeding to the minimum height necessary for the cut and so that it will return automatically to its lowest position after the cut is completed. The weight of any self-adjusting hood guard shall be counterbalanced to some extent.

7.4.1.2 The support for the hood guard shall be fixed to the table or machine frame or may be separate from the machine. The guard and its supports shall be so fixed that the guard cannot move out of place.

7.4.1.3 The uprunning teeth of the saw blade above the table shall be provided either with a riving knife complying with 7.1.5 - 7.1.8 or by some other device which will give equivalent protection. If a riving knife is used this shall be in place for both cross-cutting and ripping.

7.4.1.4 If a riving knife complying with 7.1.5 is used, the distance between the front edge of the riving knife and the teeth of the saw shall not exceed 10 mm; the top point of the saw blade shall not be higher than 5 mm above the top point of the riving knife; the vertical

adjustment of the riving knife to within 5 mm of the top point of the saw blade does not necessarily apply to riving knives also serving as a support of a hood guard. This provision does not affect the requirements laid down in paragraph 7.1.6.

7.4.1.5 Every table circular sawing machine shall be so designed that ripping and cross-cutting fences (guides) can be fitted.

7.4.1.6 The width of the table slot shall not exceed the thickness of the saw blade in use by more than 10 mm. So far as practicable, replaceable saw filler pieces not less than 100 mm wide shall be provided to fit the different size of saw blade which may be used. The saw slot shall extend to a sufficient distance behind the saw blade to permit a suitable riving knife to be mounted when the largest saw blade for which the machine is designed is in use. On machines which are not designed to accommodate saw filler pieces, the front portion of the table slot shall not be longer than is necessary to accommodate the largest saw blade for which the machine is designed.

7.4.1.7 The size of the sawing table shall be sufficient in relation to the diameter of the largest saw blade to be used on the machine, so that the stability of the workpiece is ensured during the sawing operation.

7.4.2 Circular sawing machines for ripping

7.4.2.1 The requirements of 7.4.1.4 and 7.4.1.5 to 7.4.1.7 apply accordingly to panel saws and precision cut circular sawing machines and to similar circular sawing machines for ripping.

7.4.3 Circular sawing machines for cross-cutting

7.4.3.1 Sawing machines for firewood shall be provided with a suitable device such as a travelling table or a table on a pivoted frame to feed the stock to the blade. This device shall be so designed that the operator is not placed within the working plane of the blade. This device shall return of its own accord to its retracted position after each cut.

7.4.3.2 If the stock is not adequately supported on both sides of the cut, it shall be held on the travelling feeding device by one effective gripping device to prevent a tilting, turning or canting of the workpiece.

7.4.3.3 When the device is returned to the retracted position, the saw blade shall be completely covered.

7.5 Automatic circular sawing machines

7.5.1 Automatic circular sawing machines for ripping, edging and other multi-blade circular sawing machines shall be provided with suitable devices so as to retain workpieces or splinters accidentally ejected by the saw blade. These devices shall extend over a sufficient width at the front of the machine to contain material which is ejected sideways. The requirements of 7.1.5 - 7.1.10 and 4.10, 4.11 and 4.14 shall apply to single and multi-blade automatic circular sawing machines where relevant.

3rd part - Operation and maintenance

Chapter 6 - Operation and maintenance

8. Operation of stationary woodsawing machines

8.1 Guards and other protective devices for woodsawing machines shall be maintained in position and capable of performing their full functions when a machine is in motion.

8.2 No person shall install, operate or work at any stationary woodsawing machine unless he has a thorough knowledge and experience of the working of the machine and the dangers arising from the machine.

8.3 No person shall make any adjustment to any part of a woodworking machine or to any guard or protective device while the cutters are in motion except where the adjustment can be made without danger.

8.4 If adjustments are not permitted while the machine is in motion, effective arrangements shall be made to prevent accidental starting of the machine.

8.5 Chips, splinters and other similar material within the vicinity of moving tools shall not be removed by hand. Suitable appliances shall be provided and used for this purpose.

8.6 Splinters that have become trapped between fixed and moving parts shall only be removed when the machine is at rest. Effective arrangements shall be made to prevent accidental starting of the machine.

8.7 Sawing machines that are fed by hand shall not be left unattended unless the tools are effectively guarded.

8.8 Operators of woodsawing machines which are fed by hand shall not be distracted from their work.

8.9 Suitable guides or effective clamps shall be provided for the workpieces. Where necessary, effective devices shall be provided to prevent a workpiece tilting or turning. When the cutting is done with the use of guides, the fence of the machine shall be fitted with a supplementary guide made of wood. This supplementary guide shall not hinder the use of the hood guard.

8.10 Where long workpieces are being cut on sawing machines, suitable rollers, extension tables or other means shall be provided to give adequate support to the workpieces.

8.11 Suitable feeding or clamping devices and slide rods or other effective devices shall be used to reduce the danger when sawing short or small workpieces.

8.12 A saw blade shall not be brought to rest by exerting pressure on the side of the blade.

8.13 Saw blades shall only be used in the way the producer has recommended. For the sawing of wood, only suitable blades shall be used.

8.14 At sawing machines for the cutting of trunks, sitting on trunks shall be forbidden during the cutting.

8.15 Suitable arrangements shall be provided at log band sawing machines and log circular sawing machines to prevent vertical movement of the pieces being cut. In addition, arrangements shall be made so that the ends of short trunks cannot lift out of position.

8.16 On every vertical frame sawing machine the wedges used for straining the saw blades shall be securely locked in place.

8.17 Pendulum saws and overhead arm supporting moving saw carriages shall not be used for ripping.

8.18 At every woodsawing machine adequate and suitable lighting shall be provided for the work which is being carried on. The lighting shall not give rise to stroboscopic effects.

8.19 The operating instructions for woodsawing machines given by the producer shall be kept near the machine and shall be observed accurately by the personnel.

9. Maintenance of stationary woodsawing machines

9.1 The saw blades of woodsawing machines shall be maintained in good condition. Defective blades, such as cracked or deformed blades, shall be replaced and removed from the room or place where sawing is being done and shall not be used again.

9.2 Guards and other devices shall be maintained in good condition and shall be thoroughly examined at suitable intervals. If any defects are discovered, the guard or device shall either be immediately repaired or removed from the machine.

9.3 Sawdust, chips and other waste material which constitute a danger shall be removed with a minimum of delay.

9.4 No cleaning or maintenance shall be carried out at machines in motion unless this work can be done without danger.

9.5 If cleaning and maintenance are not permitted unless the machines are at rest, effective steps shall be taken to prevent accidental starting of the machines.

9.6 The points of the elements of grab non-kick-back devices shall be kept sharp.

10. Instructions to operators

10.1 Instructions concerning the operation and maintenance of woodsawing machines shall be brought to the knowledge of operators, regard being had, inter alia, to the relevant provisions of points 8.1 to 9.6.

APPENDIX TO THE RESOLUTION / ANNEXE A LA RESOLUTION

Glossary in five languages / Glossaire en cinq langues

5.1	Frame sawing machines Machines à scier à cadre Gattersägemaschinen Raamzaagmachines Segatrici alternative
5.2	Vertical frame sawing machines Machines à scier verticales à cadre Vertikal-Gattersägemaschinen Vertikale Raamzaagmachines Segatrici alternative verticali
6.1	Sawing machines with a continuous tool Machines à scier à mouvement continu Sägemaschinen mit umlaufendem Werkzeug Zaagmachines met doorlopende zaagbeweging Segatrici con utensile a movimento continuo
	Spoked saw wheels Volants à rayon Bandsägen-Räder Spaakwielen Volani a razze
6.2.1	Log band sawing machines Machines à scier à ruban à grumes Blockbandsägemaschinen Bloklintzaagmachines Segatrici a nastro per tronchi
	Band resawing machines Machines à scier à ruban à refendre Trennbandsägemaschinen Lintherzaagmachines Segatrici a nastro per rifendere
6.3	Table band sawing machines Machines à scier à ruban à table Tischbandsägemaschinen Tafellintzaagmachines Segatrici a nastro con banco
7.1	Sawing machines with a rotating tool Machines à scier à mouvement circulaire Sägemaschinen mit sich drehendem Werkzeug Zaagmachines met ronddraaiende zaag Segatrici con utensile a movimento circolare

7.1.2

Circular sawing machines
Machines à scier circulaires
Kreissägemaschinen
Cirkelzaagmachines
Segatrici circolari

Guard (hood guard)
Dispositif de protection (cape protectrice)
Schutzhaube
Beschuttingskap
Cuffia di protezione

7.1.3

Riving knife
Couteau diviseur
Spaltkeil
Spouwmes
Coltello divisore

7.1.9

Anti-kick-back device (fingers)
Dispositifs anti-recul à griffes
Greifer-Rückschlagsicherungen
Terugslagbeveiliging met pallen
Dispositivi a pendolini contro il rigetto del pezzo

7.1.10

Automatic circular sawing machines for ripping
Machines à scier circulaires automatiques pour coupe longitudinale
Automatische Längsschnittkreissägemaschinen
Automatische cirkelzaagmachines voor schulpen
Segatrici circolari automatiche per taglio longitudinale

Multi-blade circular sawing machines
Machines à scier circulaires à lames multiples
Mehrblattkreissägemaschinen
Meerbladscirkelzaagmachines
Segatrici circolari multilame

Circular sawing machines with automatic feeds
Machines à scier circulaires à alimentation automatique
Kreissägemaschinen mit selbsttätigem Vorschub
Cirkelzaagmachines met automatische invoer
Segatrici circolari con alimentazione automatica

7.2

Single blade stroke circular sawing machines for cross cutting
Machines à scier monolames, outil mobile pour coupe transversale
Einblattkreissägemaschinen (Hubkreissägen) (vorwiegend) für Querschnitt
Enkelblad cirkelzaagmachines met bewegende zaag voor afkorten
Segatrici circolari a lama unica e mobile, per taglio trasversale

7.3.1

Automatic single blade stroke circular sawing machines for ripping
Machines à scier circulaires automatiques, monolames à outil mobile, pour coupe longitudinale
Automatische Einblattkreissägemaschinen für Längsschnitt
Automatische enkelblad cirkelzaagmachines met bewegende zaag voor schulpen
Segatrici circolari automatiche, a lama unica e mobile per taglio trasversale

7.3.3	Automatic panel sawing machines Machines à scier automatiques à panneaux Automatische Formatkreissägemaschinen Automatische formaat-zaagmachines Segatrici automatiche per pannelli
7.4	Single blade non-stroke circular sawing machines Machines à scier monolames, outil non mobile Einblattkreissägemaschinen mit ortsgebundener Sägeblattwelle Enkelblad cirkelzaagmachines met niet beweegbare zaag Segatrici a lama unica e fissa
7.4.1	Table circular sawing machines for ripping and cross-cutting Machines à scier circulaires à table pour coupe longitudinale et transversale Tischkreissägemaschinen für Längs- u. Querschnitt Tafelcirkelzaagmachines voor schulpen en afkorten Segatrici con banco per taglio longitudinale e trasversale
7.4.2	Circular sawing machines for ripping Machines à scier circulaires pour coupe longitudinale Kreissägemaschinen für Längsschnitt Cirkelzaagmachines voor schulpen Segatrici circolari per taglio longitudinale
7.4.3	Circular sawing machines for cross-cutting Machines à scier circulaires pour coupe transversale Kreissägemaschinen für Querschnitt Cirkelzaagmachines voor afkorten Segatrici circolari per taglio trasversale
	Circular sawing machines for firewood Machines à scier circulaires à bois de chauffage Brennholzkreissägemaschinen Brandhoutcirkelzaagmachines Segatrici circolari per legna da ardere
7.5.1	Automatic multi-blade circular sawing machines Machines à scier circulaires automatiques à plusieurs lames Automatische Mehrblattkreissägemaschinen Automatische Meerbladscirkelzaagmachines Segatrici circolari automatiche a più lame
7.5.2	Automatic circular sawing machines for edging Machines à scier circulaires automatiques à déligner Automatische Kreissägemaschinen für Längsschnitt Automatische cirkelzaagmachines voor kantzagen Segatrici circolari automatiche per rifilare
8.10	Rollers or extension tables Rallonges à rouleau ou tables d'appoint Rolltische oder Verlängerungstische Rolbanen of verlengtafels Rulli o banchi supplementari

8.11	Feeding and clamping devices or slide rods Dispositifs d'alimentation, de fixation ou de guidage Zufuhr- oder Spannvorrichtungen Aanvoer-, vastzet of geleidingsinrichtingen Dispositivi di alimentazione, di fissaggio o di guida
8.17	Pendulum sawing machines Machines à scier à balanciers Pendelsägemaschinen Pendelzaagmachines Segatrici a pendolo
	Overhead arm supporting moving saw carriage Chariots mobiles à articulation supérieure Auslegersägemaschinen Radiaalzaagmachines Segatrici radiali
9.6	Grab non-kick-back devices Griffes de fixation anti-recul Greifer-Rückschlagsicherungen Terugslagbeveiliging met Haken Dispositivi control il rifiuto del pezzo