

DIN EN 1218-4:2009-12 (E)

Safety of woodworking machines - Tenoning machines - Part 4: Edge banding machines fed by chain(s) (include s Amendment A2:2009)

Contents		Page
Foreword		4
Introduction		5
1	Scope	6
2	Normative references	6
3	Terms and definitions	9
3.1	General	9
3.2	Terms	9
3.3	Definitions	11
4	List of significant hazards	13
5	Safety requirements and/or measures	15
5.1	General	15
5.2	Controls	16
5.2.1	Safety and reliability of control systems	16
5.2.2	Position of controls	17
5.2.3	Starting	17
5.2.4	Stop controls	18
5.2.5	Emergency stop	19
5.2.6	Integrated feed	19
5.2.7	Mode selection	19
5.2.8	Speed changing	21
5.2.9	Control duplication	21
5.2.10	Failure of the power supply	21
5.2.11	Failure of the control circuits	21
5.3	Protection against mechanical hazards	22
5.3.1	Stability	22
5.3.2	Risk of break-up during operation	22
5.3.3	Tool holder and tool design	22
5.3.4	Braking	24
5.3.5	Devices to minimise the possibility or the effect of ejection or kick-back	26
5.3.6	Work-piece supports and guides	27
5.3.7	Prevention of access to moving parts	27
5.4	Protection against non-mechanical hazards	34
5.4.1	Fire	34
5.4.2	Noise	35
5.4.3	Emission of chips, and dust	36
5.4.4	Electricity	36
5.4.5	Ergonomics and handling	37
5.4.6	Lighting	37
5.4.7	Pneumatics	38
5.4.8	Hydraulics	38
5.4.9	Heat	38
5.4.10	Substances	38
5.4.11	Electromagnetic compatibility	38
5.4.12	Static Electricity	38
5.4.13	Errors of fitting	38

5.4.14	Isolation	39
5.4.15	Maintenance	39
6	Information for use	39
6.1	Warning devices	39
6.2	Marking	40
6.3	Instruction handbook	40
Annex A (informative) Examples of safety related control systems		44
Annex B (normative) Tool spindle dimensional tolerances		48
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC		50
Annex ZB (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC		51
Bibliography		52