

DIN EN ISO 19085-10/A11:2021-06 (E)

Woodworking machines - Safety - Part 10: Building site saws (contractor saws) (ISO 19085-10:2018, including Corrected version 2019-12)

Contents		Page
European foreword		5
Annex ZA (informative) Relationship between this European Standard and the essential requirements of Directive 2006/42/EC aimed to be covered		6
Foreword		9
Introduction		10
1	Scope	11
2	Normative references	11
3	Terms and definitions	12
4	List of significant hazards	14
5	Safety requirements and measures for controls	15
5.1	Safety and reliability of control systems	15
5.2	Control devices	15
5.3	Start	16
5.4	Safe stops	16
5.4.1	General	16
5.4.2	Normal stop	16
5.4.3	Operational stop	16
5.4.4	Emergency stop	16
5.5	Braking function of tool spindles	16
5.6	Mode selection	16
5.7	Spindle speed changing	16
5.7.1	Spindle speed changing by changing belts on the pulleys	16
5.7.2	Spindle speed changing by incremental speed change motor	16
5.7.3	Infinitely variable speed by frequency inverter	16
5.8	Failure of any power supply	16
5.9	Manual reset control	17
5.10	Enabling control	17
5.11	Machine moving parts speed monitoring	17
5.12	Time delay	17
6	Safety requirements and measures for protection against mechanical hazards	17
6.1	Stability	17
6.1.1	Stationary machines	17
6.1.2	Displaceable machines	17
6.2	Risk of break-up during operation	17
6.3	Tool holder and tool design	17
6.3.1	General	17
6.3.2	Spindle locking	17
6.3.3	Circular saw blade fixing device	18
6.3.4	Flange dimensions for circular saw blades	18
6.4	Braking	18
6.4.1	Braking of tool spindles	18
6.4.2	Maximum run-down time	18

6.4.3	Brake release	18
EN ISO 19085-10:2019/A11:2020 (E) 6.5 Safeguards		18
6.5.1	Fixed guards	18
6.5.2	Interlocking movable guards	18
6.5.3	Hold-to-run control	18
6.5.4	Two hand control	18
6.5.5	Electro-sensitive protection equipment (ESPE)	18
6.5.6	Pressure sensitive protection equipment (PSPE)	18
6.6	Prevention of access to moving parts	19
6.6.1	General	19
6.6.2	Guarding of tools	19
6.6.3	Guarding of drives	23
6.6.4	Guarding of shearing and/or crushing zones	23
6.7	Impact hazard	23
6.8	Clamping devices	24
6.9	Measures against ejection	24
6.9.1	General	24
6.9.2	Guards material and characteristics	24
6.9.3	Anti-kickback devices	24
6.10	Work-piece support and guides	28
6.10.1	Rip fence	28
6.10.2	Cross-cut fence	29
6.10.3	Machine table	29
6.10.4	Extension table	29
6.11	Safety appliances	29
7	Safety requirements and measures for protection against other hazards	30
7.1	Fire	30
7.2	Noise	31
7.2.1	Noise reduction at the design stage	31
7.2.2	Noise emission measurement	31
7.3	Emission of chips and dust	31
7.4	Electricity	31
7.4.1	General	31
7.4.2	Displaceable machines	31
7.5	Ergonomics and handling	31
7.6	Lighting	31
7.7	Pneumatics	31
7.8	Hydraulics	32
7.9	Electromagnetic compatibility	32
7.10	Laser	32
7.11	Static electricity	32
7.12	Errors of fitting	32
7.13	Isolation	32
7.14	Maintenance	32
8	Information for use	32
8.1	Warning devices	32
8.2	Markings	32
8.2.1	General	32
8.2.2	Additional markings	32
8.3	Instruction handbook	33
8.3.1	General	33
8.3.2	Additional information	33
EN ISO 19085-10:2019/A11:2020 (E) Annex A (informative) Performance level required		34
Annex B (normative) Test for braking function		35
Annex C (normative) Stability test for displaceable machines		36

Annex D (normative) Impact test for guards37
Annex E (normative) Noise emission measurement for machines not in ISO 7960:1995 38
Annex F (normative) Frame rigidity test 39
Annex G (normative) Saw blade guard rigidity test40
Annex H (normative) Minimum dimensions of machine table, extension table and table insert41
Annex I (normative) Riving knife longitudinal and lateral rigidity test42
Annex J (normative) Dimensions of test probe 44
Bibliography45