

DIN EN ISO 11148-13:2019-07 (E)

Hand-held non-electric power tools - Safety requirements - Part 13: Fastener driving tools (ISO 11148-13:2017)

Contents	Page
European foreword	4
Annex ZA (normative) Relationship between this European Standard and the essential requirements of EU Directive 2006/42/EC aimed to be covered	5
Foreword	6
Introduction	7
1 Scope	8
2 Normative references	8
3 Terms and definitions	9
3.1 General terms	9
3.2 Terms and definitions related to fastener driving tools	10
4 Safety requirements and measures	15
4.1 General	15
4.2 Mechanical safety	15
4.2.1 Protection against points and edges of fasteners	15
4.2.2 Prevention of unintended ejection of fasteners	15
4.2.3 Prevention of free flight of fasteners	16
4.2.4 Design of the workpiece contact	16
4.2.5 Permitted trigger actuation modes	18
4.2.6 Strength of the fastener driving tool	19
4.2.7 Surfaces, edges and corners	19
4.2.8 Stability	19
4.2.9 Tool construction	19
4.2.10 Unintentional change of actuation mode	19
4.3 Electrical safety	20
4.4 Thermal safety	20
4.4.1 Hot surfaces	20
4.4.2 Cold surfaces	20
4.5 Noise reduction	20
4.6 Mechanical impact (vibration/recoil)	20
4.7 Materials and substances processed, used or emitted	21
4.7.1 Collating material residues	21
4.7.2 Discharged air, gas and lubricants	21
4.8 Ergonomics	21
4.8.1 Weight and control of the tool	21
4.8.2 Handle design	22
4.9 User information	22
4.9.1 Tool markings	22
4.9.2 Tool operating instructions	22
4.10 Fire and explosion	22
4.10.1 Hazardous energy supplies for pneumatic tools	22
4.10.2 Release of flammable gas from gas tools and gas containers	22
4.10.3 Rupture due to high temperatures in the tool	23

5	Verification	23
5.1	General	23
5.2	Protection against mechanical hazards	23
5.2.1	Protection against points and edges of fasteners	23
5.2.2	Prevention of ejected fasteners	23
5.2.3	Prevention of free flight of fasteners	24
5.2.4	Design of the workpiece contact	24
5.2.5	Actuation modes	25
5.2.6	Strength of the fastener driving tool	27
5.2.7	Surfaces, edges and corners	28
5.2.8	Stability	28
5.2.9	Tool construction	28
5.2.10	Unintentional change of actuation mode	28
5.3	Electrical safety	28
5.4	Thermal safety	28
5.4.1	Hot surfaces	28
5.4.2	Cold surfaces	29
5.5	Noise	29
5.6	Mechanical impact (vibration/recoil)	29
5.7	Materials and substances processed, used or emitted	29
5.7.1	Collating material residues	29
5.7.2	Discharged air, gas and lubricants	29
5.8	Ergonomics	30
5.8.1	Weight and control of the tool	30
5.8.2	Handle design	30
5.9	User information	30
5.9.1	Tool marking	30
5.9.2	Tool operating instructions	30
5.10	Fire and explosion	30
5.10.1	Hazardous energy supplies for pneumatic tools	30
5.10.2	Release of flammable gas from gas tools and gas containers	30
5.10.3	Rupture test for gas containers at high temperature	32
5.11	Structure of verification	33
6	Information for use	34
6.1	Markings	34
6.2	Instruction handbook	35
6.2.1	General	35
6.2.2	Operator's instructions	35
6.2.3	Additional safety instructions for pneumatic tools	39
6.2.4	Additional safety instructions for gas tools	40
6.2.5	Specific safety instructions	40
6.3	Operating instructions	40
6.4	Data	41
6.4.1	General	41
6.4.2	Noise	41
6.4.3	Mechanical impact (vibration/recoil)	41
6.5	Maintenance instructions	41
	Annex A (informative) List of significant hazards	43
	Annex B (informative) Example of fastener driving tools covered by ISO 11148-13	46
	Annex C (normative) Symbols for labels and signs	47
	Annex D (normative) Warnings and symbols for labels and signs for tools with contact actuation capability	48
	Annex E (informative) Information on the ergonomic design of the handle	50
	Bibliography	51