

ISO 19432-1:2020-01 (E)

Building construction machinery and equipment - Portable, hand-held, internal combustion engine-driven abrasive cutting machines - Part 1: Safety requirements for cut-off machines for centre-mounted rotating abrasive wheels

Contents		Page
	Foreword	v
	Introduction	vi
1	Scope	1
2	Normative references	1
3	Terms and definitions	2
4	Safety requirements and verification	5
4.1	General	5
4.2	Handles	6
4.2.1	Requirements	6
4.2.2	Verification	9
4.3	Spindle speed	9
4.3.1	Requirement	9
4.3.2	Verification	9
4.4	Engine-starting device	9
4.4.1	Requirements	9
4.4.2	Verification	10
4.5	Engine-stopping device	10
4.5.1	Requirements	10
4.5.2	Verification	10
4.6	Throttle control system	10
4.6.1	Dimensions	10
4.6.2	Operation	10
4.6.3	Throttle lock	11
4.7	Clutch	12
4.7.1	Requirements	12
4.7.2	Verification	12
4.8	Exhaust gases	12
4.8.1	Requirements	12
4.8.2	Verification	12
4.9	Cutting-debris discharge	12
4.9.1	Requirements	12
4.9.2	Verification	13
4.10	Fuel tanks, oil tanks and fuel lines	13
4.10.1	Tank filler location and identification	13
4.10.2	Tank filler openings	13
4.10.3	Verification	13
4.11	Protection against contact with parts under high voltage	14
4.11.1	Requirements	14
4.11.2	Verification	14
4.12	Transmission cover(s)	14
4.12.1	Requirements	14
4.12.2	Verification	14
4.13	Protection against contact with hot parts	14
4.13.1	Requirements	14
4.13.2	Verification	16
4.14	Cut-off wheel guard	16
4.14.1	Requirements	16
4.14.2	Verification	17

4.15	Flange locking device	17
4.15.1	Requirements	17
4.15.2	Verification	17
4.16	Flange assembly	18
4.16.1	Requirements	18
4.16.2	Verification	18
4.17	Spindle diameter	19
4.17.1	Requirements	19
4.17.2	Verification	19
4.18	Special tools	19
4.18.1	Requirements	19
4.18.2	Verification	19
4.19	Noise	19
4.19.1	Reduction by design at source and by protective measures	19
4.19.2	Noise measurement	20
4.20	Vibration	20
4.20.1	Reduction by design at source and by protective measures	20
4.20.2	Vibration measurement	20
4.21	Electromagnetic immunity	20
4.21.1	Requirements	20
4.21.2	Verification	20
5	Information for use	21
5.1	Instruction handbook	21
5.1.1	General	21
5.1.2	Technical data	21
5.1.3	Other information	22
5.2	Markings	24
5.3	Warnings	25
5.4	Test of labels	25
5.4.1	General	25
5.4.2	Preparation of test specimens and control specimens	26
5.4.3	Wipe resistance test	26
5.4.4	Adhesion test	26
Annex A	(normative) Strength test of cut-off wheel guard	28
Annex B	(normative) Noise test code — Engineering method (grade 2 of accuracy)	30
Annex C	(normative) Measurement of vibration values at the handles	39
Annex D	(normative) Cut-off machine positions	46
Annex E	(normative) Summary of results from round-robin tests (2007 and 2008) on one cut-off machine	48
Annex F	(informative) List of significant hazards	49
Bibliography	51