

DIN EN 16486:2020-11 (E)

Machines for compacting waste materials or recyclable fractions - Compactors - Safety requirements (includes Amendment :2020)

Contents	Page
European foreword	4
Introduction	5
1 Scope	6
2 Normative references	7
3 Terms and definitions	9
4 List of significant hazards	13
5 Safety requirements and/or protective measures	17
5.1 Mechanical hazards	17
5.1.1 General	17
5.1.2 Feed equipment area	19
5.1.3 Feed hopper/opening area and compaction chamber	21
5.1.4 Area behind the compacting parts	23
5.1.5 Container closing devices	23
5.1.6 Interface between compaction unit and container on static compactors	24
5.1.7 Emptying process of transportable compactors	25
5.1.8 Handling of transportable compactors	25
5.1.9 Traversing systems	25
5.2 Hazards due to failures in the control system or unexpected start-up	28
5.2.1 Control devices, actuators and systems	28
5.2.2 Prevention of unauthorised operation	28
5.2.3 Emergency stop	29
5.2.4 Required performance levels PLr	29
5.3 Electrical hazards	29
5.4 Hazards from hydraulic equipment	30
5.5 Slips, trips and falls	30
5.6 Hazards generated by noise	30
5.6.1 Noise reduction at source by design	30
5.6.2 Noise reduction by protective measures	31
5.6.3 Information connected with noise hazards	31
5.7 Hazards due to neglecting ergonomic principles in the design of the machine	31
6 Verification of the safety requirements and/ or protective measures	31
7 Information for use	34
7.1 General Information	34
7.2 Information for safe operation	35
7.2.1 General	35
7.2.2 Instructions for operation	35
7.2.3 Information on noise	36
7.2.4 Installation instructions	36
7.2.5 Setting and maintenance instructions	36
7.2.6 Spare parts list	37
7.2.7 Preventing faults and fault recovery	37
7.2.8 Information for preventing and removing blockages	37

7.2.9	Information relating to connections between the compactor, container and any traversing systems	37
7.2.10	Transportable compactors	38
7.2.11	Information on examinations and/or inspections	38
7.3	Marking	39
7.3.1	Manufacturer's plate	39
7.3.2	Safety signs	39
	Annex A (normative) Noise test code	41
A.1	Scope	41
A.2	Determination of emission sound pressure level at the work station(s)	41
A.2.1	Basic standards	41
A.2.2	Measurement uncertainty	42
A.3	Determination of sound power levels	42
A.3.1	Basic standards	42
A.3.2	Measurement uncertainty	42
A.4	Installation and mounting conditions for the noise measurement	43
A.5	Operating conditions	43
A.6	Information to be recorded and reported	43
A.6.1	General	43
A.6.2	Compactor data	43
A.6.3	Standards used	43
A.6.4	Noise data	43
A.6.5	Installation and operating conditions	43
A.7	Declaration and verification of noise emission values	43
	Annex B (informative) Preliminary dialogue between manufacturer and user	45
	Annex ZA (informative) Relationship between this European Standard and the essential requirements of Directive 2006/42/EC machinery, and amending Directive 95/16/EC (recast) [2006 L157] aimed to be covered	46
	Bibliography	50