

DIN EN 13525:2022-06 (E)

Forestry machinery - Wood chippers - Safety

Contents		Page
European foreword		4
Introduction		5
1	Scope	6
2	Normative references	7
3	Terms and definitions	8
4	Safety requirements and/or protective/risk reduction measures	15
4.1	General	15
4.2	Operator controls	15
4.2.1	General	15
4.2.2	Starting the machine	16
4.2.3	Stopping the machine	16
4.2.4	Infeed controls	16
4.2.5	Lower and Side Protective Device(s)	17
4.2.6	Top Stop Device	22
4.2.7	Emergency stop	26
4.2.8	Combination of controls	27
4.2.9	Safety and reliability of control systems	27
4.3	Protection against mechanical hazards	27
4.3.1	Stability	27
4.3.2	Risk of break-up during operation	28
4.3.3	Hazards related to infeed components and chipping components	28
4.3.4	Risks due to ejected objects	40
4.3.5	Protection against access to moving power transmission parts	41
4.4	Protection against non-mechanical hazards	41
4.4.1	Noise	41
4.4.2	Hydraulic components	42
4.4.3	Hot surfaces	42
4.4.4	Electrical hazards	42
4.4.5	Exhaust fumes	43
4.5	Preparation for transport and maintenance	43
5	Verification of the safety requirements and/or measures	44
5.1	General	44
5.2	Stability	44
5.3	Chipping components risk of break-up	45
5.4	Hot surfaces	46
5.4.1	Temperature measuring equipment	46
5.4.2	Test method	46
5.4.3	Test acceptance	46
5.5	Verification of requirements on noise - Measurement of noise emission	46
6	Information for use	47
6.1	Instruction handbook	47
6.2	Marking	49
6.3	Warnings	49
Annex A (normative)	List of significant hazards	51

Annex B (normative) Noise test code - Engineering method (grade 2)	55
B.1 Scope	55
B.2 Emission sound pressure level determination	55
B.3 A-weighted sound power level determination	55
B.4 Installation and mounting conditions	56
B.5 Operating conditions	56
B.6 Measurement uncertainties	57
B.7 Information to be recorded and reported	57
B.8 Declaration and verification	57
Annex C (normative) Integrated infeed conveyor	59
Annex D (normative) Lower and Side Protective Devices tests	62
D.1 Robustness of LSPD (Lower and Side Protective Devices)	62
D.1.1 General	62
D.1.2 Test n° 1 - Robustness of LPD (Lower Protective Device)	62
D.1.3 Test n° 2 - Robustness of LPD (Lower Protective Device)	62
D.1.4 Test n° 3 - Robustness of SPD (Side Protective Device)	62
D.2 Functioning of LSPD (Lower and Side Protective Devices)	62
D.2.1 General	62
D.2.2 Test n° 1 - Functioning of LPD (Lower Protective Device)	62
D.2.3 Test n° 2 - Functioning of SPD (Side Protective Device)	63
Annex E (informative) Summary of features of the different stopping functions	67
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC aimed to be covered	72
Bibliography	74