

DIN EN 609-1:2017-04 (E)

Agricultural and forestry machinery - Safety of log splitters - Part 1: Wedge splitters

Contents	Page
European foreword	4
Introduction	5
1 Scope	6
2 Normative references	6
3 Terms and definitions	8
4 List of significant hazards	11
5 Safety requirements and/or protective measures	13
5.1 General	13
5.2 Electrical equipment	13
5.3 Control systems	13
5.3.1 General	13
5.3.2 Reliability of the control systems	14
5.3.3 Ergonomic requirements of control actuators	14
5.4 Starting and stopping of the power source	15
5.4.1 General	15
5.4.2 Stopping of other than electrically powered machines	15
5.4.3 Stopping of the electrically powered machines	15
5.5 Emergency stop	15
5.6 Two-hand control device	15
5.7 Power supply	16
5.7.1 Electrically powered machines	16
5.7.2 Machines powered by an external power supply	16
5.7.3 Machines powered by an internal combustion engine	16
5.7.4 Machines with two or more power supplies	17
5.8 Hydraulic equipment	17
5.9 Safe guarding of the splitting zone	17
5.9.1 General	17
5.9.2 Horizontal short log wedge splitter	17
5.9.3 Horizontal long log wedge splitter	22
5.9.4 Vertical short log wedge splitter	27
5.9.5 Vertical long log wedge splitter	33
5.10 Log holding requirements	37
5.10.1 General	37
5.10.2 Prior to and during the splitting	38
5.10.3 After the splitting	38
5.11 Return movement of the moving device of the splitter	40
5.12 Log-handling device	41
5.13 Requirements for hauling winches that can be attached to a wedge splitter	42
5.14 Bluntness of edges	43
5.15 Stability	43
5.16 Transport and handling of the machine	43
5.16.1 General	43
5.16.2 Ergonomic requirements	43
5.17 The guarding of power transmission from an external power source	44
5.18 Unprotected gravity moving objects with semi-automatically controlled movement	44

6	Verification of safety requirements	44
7	Information for use	46
7.1	Marking of machine	46
7.2	Warnings on machine	46
7.3	Instruction handbook	47
7.3.1	General	47
7.3.2	Other information	47
Annex A (normative) Log holding test for vertical log wedge splitters		49
A.1	Long log wedge splitters - Test requirements for the log fixing device	49
A.1.1	General	49
A.1.2	Holding force	49
A.2	Short log wedge splitters - Test requirements for the log fixing device	50
A.2.1	General	50
A.2.2	Holding force	50
Annex B (normative) Examples of solutions and verification of the two-hand control device for wedge splitters		52
B.1	Prevention of accidental actuation and of defeat	52
B.2	Example for prevention of defeat using one hand	52
B.3	Example for prevention of defeat using hand and elbow of the same arm	52
B.4	Example for prevention of defeat using the forearm(s) or elbow(s)	53
B.5	Example for prevention of defeat using the hand and other parts of the body e.g. knee(s)	54
Annex C (normative) Testing requirements for hot exhaust surfaces and hot surfaces		55
C.1	Temperature measuring equipment	55
C.2	Method of test	55
C.3	Test acceptance	55
Annex D (normative) Stability test for log splitters equipped with a hauling winch		57
D.1	General	57
D.2	Lateral stability test and requirements	57
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC on machinery		58
Bibliography		59

types of machines (EN 13857 and machine specific distances); -- specific requirements for log handling, which includes holding before, during and after the splitting, but also log lifting; -- improved ergonomic requirements, which consider the actual use of the machine; -- requirements for AOPD; -- requirements for hauling winches that can be, and often are, attached to the wedge splitters; -- new tests and verifications, how to interpret the standard. According to the CEN-CENELEC Internal Regulations, the national standards organisations of the following countries are bound to implement this European Standard: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and the United Kingdom