

DIN EN ISO 18497:2019-08 (E)

Agricultural machinery and tractors - Safety of highly automated agricultural machines - Principles for design (ISO 18497:2018)

Contents		Page
European foreword		3
Annex ZA (informative) Relationship between this European Standard and the Essential Requirements of Directive 2006/42/EC Machinery aimed to be covered		4
Foreword		5
Introduction		6
1	Scope	7
2	Normative references	7
3	Terms and definitions	8
4	Safety requirements and protective or risk reduction measures	10
4.1	General	10
4.2	Principles for protection	10
4.3	Machine enabling operations	11
4.3.1	General requirements	11
4.3.2	Labelling and identification	11
4.3.3	Functional requirements	11
4.4	Operational procedures	11
4.4.1	General requirements	11
4.4.2	Automated engine control	11
4.4.3	Automated motion control	13
4.5	Machine operational status	14
4.6	Overriding of highly automated operation	15
4.7	Remote stopping of highly automated operation	15
4.8	Pendant control	15
4.9	Operational speeds of the machine	15
4.10	Communication system	15
4.11	Perception system	16
4.11.1	General	16
4.11.2	Possible risk and failure modes	16
4.11.3	Fault management	17
4.12	Safeguarding system	18
4.13	Visual and audible alarms	18
4.13.1	Visual alarm	18
4.13.2	Audible alarm	19
5	Verification and validation of the safety requirements and protective or risk reduction measures	19
5.1	General	19
5.2	Verification methods	19
5.3	Test object specification	20
5.4	Verification of minimum performance of the systems perception and safety	20
6	Information for use	21
Annex A (informative) List of significant hazards		22
Bibliography		24