

DIN EN ISO 16231-2:2016-08 (E)

Self-propelled agricultural machinery - Assessment of stability - Part 2: Determination of static stability and test procedures (ISO 16231-2:2015)

Contents		Page
European foreword		3
Foreword		4
Introduction		5
1	Scope	6
2	Normative references	6
3	Terms and definitions	6
4	Determination of the centre of gravity (COG) of a self-propelled machine	7
4.1	Method to determine and to calculate the centre of gravity of the un-laden machine	7
4.2	Remarks and items to observe during this procedure	7
4.3	Methods to determine the centre of gravity of a laden machine or a machine with attachments	10
4.3.1	Graphical method	10
4.3.2	Mathematical method	12
5	Static overturning angle (SOA)	13
5.1	General	13
5.2	Lateral roll-over: Machines with one fixed and one swivelling axle (without axle swivel limiting device)	13
5.2.1	General	13
5.2.2	Graphical determination of the stability	14
5.2.3	Determination of the stability by calculation	15
5.3	Lateral roll-over: Machines with one fixed and one swivelling axle with swivelling angle limiting device	16
5.4	Lateral roll-over: machines without swivelling axle	18
5.4.1	Machines on tracks	18
5.4.2	Machines with devices to lock the swivelling axle or to modify the stability triangle	18
5.4.3	Machines with individual wheel suspension	18
5.5	Tip forward and tip rearward	18
5.5.1	Tip forward	18
5.5.2	Tip rearward	18
5.6	Body levelling systems	19
5.7	Alternative methods	19
6	Comparison of SOA and RSSA	20
Annex A	(informative) Example of calculation of centre of gravity (see Clause 4)	20
Annex B	(informative) Example of calculation of static overturning angle (see Clause 5)	21
Annex C	(normative) Calculation of RSSA	
Annex D	(informative) Impact of dynamic effects on roll-over or tip-over	24
Annex ZA	(informative) Relationship between this European standard and the Essential Requirements of EU Directive 2006/42/EC	25