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

Self-propelled agricultural machinery - Assessment of stability - Part 2: Determination of static stability and t est 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**