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# Tractors for agriculture and forestry — Roll-over protective structures — Static test method and acceptance conditions

*Tracteurs agricoles et forestiers — Structures de protection contre le retournement — Méthode d'essai statique et conditions d'acceptation*

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This document was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 2, *Common tests*.

This sixth edition cancels and replaces the fifth edition (ISO 5700:2013), which has been technically revised.

The main changes are as follows:

— updated the references to the ISO 630 series;

— replaced the ASTM A370 reference with ISO 148-1;

— tolerances have been incorporated in Clause 5 and subsequent clauses have been renumbered;

— cold weather embrittlement in subclause 10.7 has been updated;

— corrected the key table for Figure 17;

— information on clearance zone measuring rig has been moved to Annex A and subsequent annexes have been relabelled;

— removed the alternative to use killed or semi-killed steel from Annex B;

— removed Annex C Designation of Maintenance Agency.

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Testing of roll-over protective structures (ROPS) for wheeled or tracked tractors for agriculture and forestry aims at avoiding or limiting risks to the driver resulting from accidental overturning during normal operation (e.g. field work) of the tractor. The strength of the ROPS is tested by applying static loads and a static crushing test to simulate actual loads which can be imposed on the cab or frame when the tractor overturns either to the rear or to the side without free fall. The tests allow observation to be made on the strength of the structure and the attachment brackets to the tractor and also of the tractor parts that can be affected by the load imposed on the structure.

Provision is made to cover both tractors with the conventional forward-facing driver's position only, as well as those with a reversible driver's position. For tractors with a reversible driver's position, a clearance zone is defined to be combined clearance zones for the two driving positions. The point of application of the side loading is determined as the mid-point between the seat index points measured in the two positions.

It is recognized that there can be tractor designs – for example, lawn-mowers, narrow vineyard tractors, low profile tractors used in low buildings with limited overhead clearance orchards, etc., stilt tractors and certain forestry machines such as forwarders – for which this document is not appropriate.

This document specifies technical performance requirements, associated test procedures and performance test report information.

NOTE For narrow tractors, see ISO 12003-1 and ISO 12003-2.