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Agricultural and Biological Engineers

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ANSI/ASABE S599 NOV2010 (R2015)

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Standardized Deployment Performance of an Automatically Deployable ROPS for Turf & Landscape Equipment

This project originated with a request from NIOSH (CDC). Developed by a sub-committee organized under the PM-52 Turf & Landscape Equipment Systems committee, in coordination with the PM-23/2/2 ATSC ROPS committee; approved by the Power and Machinery Division of ASABE November 2010; approved as an American National Standard November 2010; reaffirmed by ASABE and ANSI May 2015.

Keywords: AD-ROPS, Automatic deployable ROPS, Automatically Deployable ROPS, Deployed, Extended, Foldable ROPS, Folded, Hinged ROPS, Retracted, Roll-over protective structures, ROPS, Self deployable ROPS, Self deploying ROPS, Telescoping ROPS

1 Purpose and Scope

1.1 The purpose of this Standard is to establish the performance requirements of an automatically deployable protective structure for ride-on turf & landscape equipment.

1.2 This Standard applies to the installation of an automatically deployable protective structure for ride on turf and landscape equipment as defined in ANSI/ASAE S323.2 This Standard does not apply to recreational machines, OHUV (Off Highway Utility Vehicles), agricultural tractors, or ATV (All Terrain Vehicle) recreational vehicles.

1.3 This standard specifies design and testing requirements for the installation of automatically deploying roll over protective structures (AD-ROPS). Performance requirements for the fully extended ROPS are not included in this standard, as these are covered in the ROPS standards that are listed in the Normative References.

2 Normative References

The following standards contain provisions, which, through reference in this text, constitute provisions of this Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this Standard are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Standards organizations maintain registers of currently valid standards.

ANSI/ASAE S323.2, *Definitions of Powered Lawn and Garden Equipment*

ANSI/ASAE S441, *Safety Signs*

ASTM B117-09, *Standard Practice for Operating Salt Spray (Fog) Apparatus*

SAE J995, *Mechanical and Material Requirements for Steel Nuts*

ISO 21299, *Powered ride-on turf care equipment-Roll-over protective structures (ROPS) — Test procedures and acceptance criteria*

ASAE S440.3 MAR2005 *Safety for Powered Lawn and Garden Equipment*