



Agricultural Manufacturers of Canada

PO Box 636 Station Main
Regina, SK S4P 3A3

Phone: (306) 522-2710
Fax: (306) 781-7293

Agricultural Machinery Standards Update

May 1, 2017

Written by: Christoph Martens, Product Safety & Compliance Manager, MacDon Industries

Standards are developed on a consensus basis and agricultural equipment manufacturers, through their various industry associations such as AMC, have a unique opportunity to help shape tomorrow's standards and stay informed of ongoing industry issues through the standards development process.

As Canadian manufacturers we can get involved with both CSA and ASABE. Both standards organizations work towards harmonization to avoid duplication of standards. The CSA committee for agricultural machinery works closely with ASABE.

Following is a status update of some relevant standards in our industry.

Lighting and Marking of Agricultural Equipment

In June 2016 the US DOT approved a federal law that mandates compliance with ANSI/SAE S279.14 "*Lighting and Marking of Agricultural Equipment on Highways*". This law also makes provision for compliance to any successor standards such as the current standard ANSI/SAE S279.17. As a point of reference, the CSA committee has adopted this same standard and published it as CSA M669-17.

This means that effective June 22 2017 all agricultural machinery sold into and operated in the USA must meet this requirement. In Canada, no such federal law exists but Manitoba previously passed a similar provincial law that requires compliance with standard ANSI/SAE S279.9.

Currently, work is being done at the AEM level (Association of Equipment Manufacturers) to draft a proposal for a new revision ANSI/SAE S279.18. This work is very preliminary which means it is a good time to get involved in this standards development process.

Braking of Agricultural Equipment

The current North American braking standard ANSI/SAE S365.9 "*Braking System Test Procedures and Braking Performance Criteria for Agricultural Field Equipment*" was published in 2011.

Currently, preliminary work is being done by members at the industry association level, which includes AEM, AMC and FEMA, to draft a proposal for a new braking standard to replace S365. Again, for any manufacturer who produces self-propelled or towed equipment it is a good time to get involved in, or at least stay informed of, this standards development process.

On an international level, a recent ISO proposal has been submitted to develop a new global braking standard for agricultural self-propelled machinery. This proposal would allow for the use of pneumatic, hydraulic, or



Agricultural Manufacturers of Canada

PO Box 636 Station Main
Regina, SK S4P 3A3

Phone: (306) 522-2710
Fax: (306) 781-7293

hydrostatic brakes. This being a very new proposal means it will go through a lengthy development process with an initial working group discussion taking place in June 2017.

Field of Vision of Self-Propelled Machinery

Several attempts have been made to develop a “field of vision” standard for self-propelled agricultural machinery, similar to the ISO 5721 series, which is for agricultural tractors. It has been challenging reaching global consensus on such a standard due to the wide range of self-propelled machines and their various applications.

At the recent ISO meetings in Mississauga the ISO working group proposed to stop work on a dedicated self-propelled field of vision standard, and rather expand the existing visibility requirement in ISO 4254-1 “*Agricultural machinery – Safety – Part 1: General requirements*”. The proposed clause would require consideration of rear visibility and, through a risk assessment, the use of appropriate devices such as mirrors, audible reverse warning alarm, visual warning signal, and protective devices. This being a recent proposal will need to go through the proper ISO channels before it can be published as an official revision of ISO 4254-1.

Safety of Highly Automated Agricultural Machinery

The work towards standard ISO 18497 “*Agricultural machinery and tractors – Safety of highly automated agricultural machines*” has been ongoing for several years and is now nearing publication as an official standard. This standard will define what constitutes a “highly automated agricultural machine” and will prescribe corresponding procedures for enabling, monitoring, and disabling highly automated operations. The standard will also prescribe a perception and guarding system to detect an obstacle in the field and control the machine to react in a safe manner (e.g. abort highly automated operation).

For questions on the standards development process please contact:

CSA contact:

Priya Malik
priya.malik@csagroup.org
416 747 4363

ISO Canadian contact for agricultural machinery activities:

Karl Klotzbach
karl.klotzbach@cnhind.com
262 636 5494

ASABE contact:

Scott Cedarquist
cedarq@asabe.org
269 932 7031
