



HIGHLIGHTS

BRAKING

- Revisions completed:
 - ANSI/ASABE S648-3.1 DEC2022 Agricultural Field Equipment Braking – Part 3: Requirements for Self-Propelled and Special Self-Propelled Machines: aligns the SPM's (self-propelled machine) with the SSP's (special self-propelled machine) and matches the original requirements of the now withdrawn ASABE S365.
 - ANSI/ASABE S648-5.2 DEC2022 Agricultural Field Equipment Braking – Part 5: Requirements for the Interface between Towing Vehicle and Towed Vehicles: corrected a unit conversion error in 6.1.3.1 b & 6.1.3.2.1 a..
- For information on braking requirements please see:
 - Part 1, Does my towed implement need brakes?: <https://youtu.be/78glRIUydWQ>
 - Part 2, Towed Vehicle Braking Performance and Sizing: https://youtu.be/LTCnEgXuM_U

TRACTORS AND SELF-PROPELLED EQUIPMENT

- ANSI/ASAE S318.19 OCT2022 Safety for Agricultural Field Equipment, has been published. The PTO operator presence control (OPC) was changed to add the option to the manufacture to design the tractor with a loud audible alarm, in the area of the PTO, to sound if the PTO is running without an operator in the operator's station. Additionally, for times when the PTO is intended to run without an operator in the operator's station, the PTO OPC need only be overridden once per tractor start-up.

FRONT OR TOWED IMPLEMENTS

- ISO/DIS 5674 Tractors and machinery for agriculture and forestry -- Guards for power take-off (PTO) drive-shafts -- Strength and wear tests and acceptance criteria. Approved. Standard is part of the Vienna Agreement. Waiting for final European consultant review. Will be published or have FDIS ballot depending on review.
- ISO/DIS 5676, Tractors and machinery for agriculture and forestry -- Hydraulic coupling -- Braking circuit. Waiting for publication.
- ISO/DIS 11471, Agricultural tractors and machinery -- Coding of remote hydraulic power services and controls. Ballot forthcoming.
- ANSI/ASAE S318.18 revision. See above.

TILLAGE EQUIPMENT

- See other general areas for updates.

ANHYDROUS AMMONIA

- Future project to revise ANSI/ASABE S625.1, Hitch Standard, will include the addition of a 1" pin. Work continues.

ROTARY MOWERS

- ISO 5718-1, Harvesting equipment -- Requirements for cutting elements -- Part 1: Blades used on rotary disc mowers and rotary drum mowers and ISO 5718-2 Part 2: Blades used on large rotary mowers, have been approved for publication.
- ISO 4254-13, Ag machinery -- Safety -- Part 13: Large rotary mowers. Approved for publication.
- ISO/NWIP 4254-15, Ag machinery -- Safety -- Part 15: Large row crop flail mowers (ANSI/ASABE S639 is basis). ISO project was not approved due to lack of country participation. The differences between ISO 4254-12 and this project need to be explained to other ISO committee members so this project will be approved. A virtual call will be arranged within the next few months.

ROPS

- A Working Draft of ISO 5700, Tractors for agriculture and forestry - Roll-over protective structures - Static test method and acceptance conditions. Draft was circulated for comments.

STANDARDS ONGOING ACTIVITIES

LIGHTING AND MARKING

- Committee continues to work on revising S279 using ISO 16154 as a guide. This revision will also correct discrepancies between in S279 and S276 concerning SIS (Speed Identification Symbol) use at 40 mph and adding SMV: (Slow Moving Vehicle) emblem which is currently in S276. Technical changes are not expected.
- Proposed revision to ISO 20383. Tractors and machinery for agriculture and forestry — Speed Identification Sign (SIS), were submitted to ISO in January 2023. Updating terms to agree with ISO 12934 and editorial clarifications. Plans are to have the revision replace the current ISO national adoption.

DRAWBAR JACKS

- X12140-1 Agricultural trailers and trailed equipment — Drawbar jacks — Part 1: Design safety, test methods and acceptance criteria. Identical US in process.
- X12140-2 Agricultural trailers and trailed equipment — Drawbar jacks — Part 2: Application safety, test methods and acceptance criteria. Identical US in process.

CAB ENCLOSURES

- ISO/WD 3020, Agricultural tractors and self-propelled sprayers — Protection of the Operator (driver) against hazardous substances. Project will be four parts. WG continues to work on projects. Based on the ASABE S613 cab series standards.
- Revision in process to ANSI/ASABE S613-1 (X613-1.1), Tractors and Self-Propelled Machinery for Agriculture — Air Quality Systems for Cabs — Part 1: Terminology and Overview. Upgrading the standard to meet current practices and references. Editorial changes will also be done to clarify and improve existing language and terminology.

OTHER AREAS OF INTEREST:

- ISO/DIS 3991 Agricultural machinery — Robotic feed systems — Safety. ISO ballot will close on 3/28/23.
- ISO/DIS 4254-19 Agricultural machinery -- Safety -- Part 19: Feed mixing machines. DIS was approved with comments from France.

OTHER ISO STANDARDS WORK THAT MAY NOT APPLY TO FEMA MEMBERS

ISO TC 23/SC 2, Ag machinery – Common tests

- ISO/FDIS 14982 Electromagnetic compatibility Part 1: General EMC requirements and Part 2: EMC requirements for functional safety. Approved. Standards are part of the Vienna Agreement. Waiting for final European consultant review. Will be published or have FDIS ballot depending on review.

ISO TC 23/SC 4, Tractors

- ISO/NWIP 22471:2020 AMD 1, Permissible mechanical connection combinations between towed and towing vehicles. NWIP and WD approved by ISO in 2021.
- ISO/NP 20019, Ag vehicles – Mechanical connections on towed vehicles – Dimensions for hitch rings. NWIP and WD approved by ISO in 2021.

ISO TC 23/SC 6, Equipment for Crop Protection

- ISO/FDIS 16119-5 Agricultural and forestry machinery – Environmental requirements for sprayers – Part 5: Aerial spray, Approved internationally for FDIS. Waiting for HAS review.
- ISO/DIS 16122-P1-4, Agricultural and forestry machinery – Inspection of sprayers, US Approved all parts, ballots active through 3/20/2023.
- ISO/DIS 19932 P1-2, Equipment for crop protections- Knapsack sprayers, US Approved all parts, international approved all parts.
- ISO/FDIS 23117-1, Agricultural and forestry machinery - Unmanned aerial spraying systems - Part 1: Environmental requirements, ballot active through 4/27/23.
- ISO/CD 23117-2, Agricultural and forestry machinery - Unmanned aerial spraying systems - Part 2: Test methods to assess the horizontal transverse spray deposition, , US Approved with comments, Approved Internationally, comment resolution in process.
- ISO/NWIP 23117-3, Agricultural and forestry machinery - Unmanned aerial spraying systems - Part 3: Field measurement method of spray drift for UAV chemical application, US Disapproved, Approved Internationally, no activity.

ISO TC 23/SC 7, Equipment for harvesting and conservation

- ISO/DIS AMD 1 4254-7, Agricultural machinery -- Safety -- Part 7: Combine harvesters, forage harvesters, cotton harvesters and sugar cane harvesters. Technical comments were made by Germany. A virtual call will be arranged within the next few months to determine if another DIS ballot is needed.
- ISO//DIS 4254-20, Agricultural machinery - Safety - Part 20: Grape, olives and coffee harvesters. A hybrid meeting will be held to discuss the DIS comments

ISO TC 23/SC 14, Operator controls, operator symbols and other displays, operator manuals

- ISO/FDIS 11684 Tractors, machinery for agriculture, powered lawn and garden equipment — Safety signs and hazard pictorials — General principles. Ballot closed 11/28/22.
- ISO/CIB 3767-5 Tractors, machinery for agriculture and forestry, powered lawn and garden equipment — Symbols for operator controls and other displays — Part 5: Symbols for manual portable forestry machines. Current ballot is for cancelling the revision of ISO 3767-5, and to confirm the current 2016 edition of ISO 3767-5. Rationale: The revision project is virtually identical to the current 2016 publication. It would be best to restart the revision at a later date, and work on the symbols in the early phase of a future revision to avoid delays in the project's development. ISO ballot will close on March 21, 2023.
- ISO/FDIS 3600 Tractors, machinery for agriculture and forestry, powered lawn and garden equipment -- Operator's manuals -- Content and format. ISO ballot closed on 10/28/22.

ISO TC 23/SC 19, Agricultural electronics

- Published or pending publication
 - ISO 5231:2022, Extended Farm Management Information Systems Data Interface (EFDI), Published.
 - ISO 10975, Tractors and machinery for agriculture – Auto-guidance systems for operator-controlled tractors and self-propelled machines – Safety requirements. Approved for publication.
 - ISO 11783-7:2022, Tractors and machinery for agriculture and forestry - Serial control and communications data network – Part 7: Implement messages application layer. Published.
 - ISO 23116-1:2022, Tractors and machinery for agriculture and forestry - Electrical high-power interface 700VDC/480VAC - Part 1: General. Published.
 - ISO 23316-2, Tractors and machinery for agriculture and forestry - Electrical high-power interface 700VDC/480VAC - Part 2: Physical interface. Approved for publication.

- 
- ISO 23316-3, Tractors and machinery for agriculture and forestry - Electrical high-power interface 700VDC/480VAC - Part 3: Safety requirements. Approved for publication.
 - ISO 23316-4, Tractors and machinery for agriculture and forestry - Electrical high-power interface 700VDC/480VAC - Part 4: AC operation mode. Approved for publication.
 - ISO 23316-5, Tractors and machinery for agriculture and forestry - Electrical high-power interface 700VDC/480VAC - Part 5: DC operation mode. Approved for publication.
 - ISO 23316-6, Tractors and machinery for agriculture and forestry - Electrical high-power interface 700VDC/480VAC - Part 6: Communication signals. Approved for publication.
 - ISO 23316-7, Tractors and machinery for agriculture and forestry - Electrical high-power interface 700VDC/480VAC - Part 7: Mechanical integration. Approved for publication.
 - Projects:
 - ISO/DIS 18497-1 Agricultural machinery and tractors – Safety of partially automated, semi-autonomous and autonomous machinery - Part 1: Machine design principles and vocabulary. US and ISO approved.
 - ISO/DIS 18497-2 Agricultural machinery and tractors – Safety of partially automated, semi-autonomous and autonomous machinery - Part 2: Design principles for obstacle protection systems. US and ISO approved.
 - ISO/DIS 18497-3, Agricultural machinery and tractors - Safety of partially automated, semi-autonomous and autonomous machinery - Part 3: Design principles for autonomous operating zones. US and ISO approved.
 - ISO/DIS 18497-4, Agricultural machinery and tractors - Safety of partially automated, semi-autonomous and autonomous machinery - Part 4: Verification methods and principles. US and ISO approved.
 - ISO/CD 23285, Agricultural machinery, tractors, and earthmoving machinery – Safety of electrical and electronic components and systems operating at 32 to 75 VCC and 21 to 50 VAC. US approved. ISO approved for restart of project. Ballot active through 3/28/2023.