

ANSI/ASABE S624 AUG2018
Grain Bin Access Design Safety



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Approved August 2018 as an American National Standard

Grain Bin Access Design Safety

Developed by members from the ASABE Structural Engineering technical committee, GEAPS (Grain Elevator and Processing Society), academic researchers and safety experts. Approved as an ASABE Standard and an American National Standard August 2018.

Keywords: Entrapment, Flowing grain, Safety

1 Purpose and Scope

- 1.1 This standard provides recommendations for design parameters in new grain storage bins.
- 1.2 This standard applies to new corrugated and smooth wall steel bins used to store various types of free flowing grain.
- 1.3 Excluded from this standard are any steel bins that meet **both** of the following criteria:
 - a. The bin has no roof or sidewall access doors
 - b. The center fill opening cover has a warning label stating that it is not a personnel access point.
- 1.4 These engineering parameters assist with safe entry into and exit from steel bins.

2 Normative References

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies unless noted. For undated references, the latest approved edition of the referenced document (including any amendments) applies.

ASAE S412, Ladders, Cages, Walkways and Stairs

ANSI/ASABE AD11684, Tractors, machinery for agricultural and forestry, powered lawn and garden equipment — Safety signs and hazard pictorials — General principles

OSHA 1910.146, Permit Required Confined Spaces, Appendix A, Section B

OSHA 1910.272, Grain Handling Facilities

ASAE S354, Safety for Farmstead Equipment

3 Definitions

- 3.1 **access point:** this may be an opening in the sidewall of the bin or an opening in the roof either of which is designed as to allow a person to enter the structure.
- 3.2 **bin entry lifeline system:** a system to restrain a person in the bin from being entrapped in grain.
- 3.3 **safety decals:** Refers to any safety or warning decals posted at the entry locations. These warning and safety decals are to be made in conformance with ASABE standard ANSI/ASABE AD11684.