ASABE S591.1 APR2018
Procedure for Measuring Point Trip Force and Maximum Trip Height of Tillage Shank Assemblies

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Proposed by the FEMA (Farm Equipment Manufacturers Association) Tillage and Ground Engaging Equipment Product Council. Approved and adopted by the ASABE Power and Machinery Division May 2008; reaffirmed December 2012; revised April 2018.

Keywords: Point force, Point load, Shank, Tillage, Trip force

1 Purpose

1.1 The purpose of this Standard is to establish a uniform method of measuring the static point trip force and trip height of agricultural tillage shank assemblies (see Figure 1). This includes field cultivator or conditioner shanks, chisel plow shanks, and subsoiler (or ripper) shanks. It is limited to those shank assemblies utilizing a spring cushion, or “S” tine/coil shank design. Rigid, non-flexing shank assemblies are excluded.

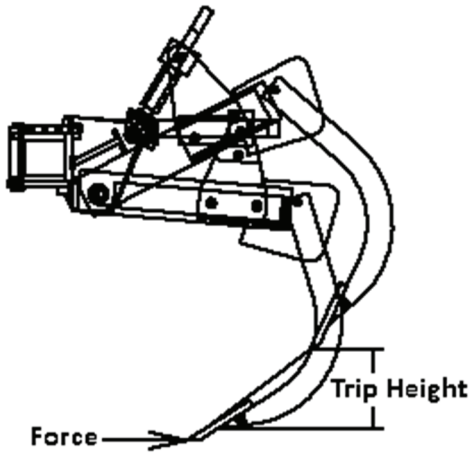

Figure 1 – Static point force and trip height

1.2 The static point trip force measurement shall be determined by Section 5 or Section 6 of this Standard, depending on the design of the shank assembly. When the test results are recorded, the test method used shall be identified.

1.3 The trip height measurement shall be determined by Section 7 or Section 8 of this Standard. When the test results are recorded, the test method used shall be identified.

2 Normative References

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

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