

ASAE S207.13 MAY2015

Operating Requirements for Tractors and Power Take-Off Driven Implements



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Proposed by the Engineering Committee of the Farm and Industrial Equipment Institute; adopted by ASAE as a Recommendation March 1953; revised January 1958, December 1962, June 1964, June 1966, December 1966, January 1968, December 1969, December 1970, May 1975; reclassified as a Standard March 1978; revised March 1980; revised editorially December 1980; reconfirmed December 1984; revised March 1987; revised editorially April 1988, July 1989; reconfirmed December 1991; revised March 1994; reaffirmed December 1998, February 2004, February 2009; editorial revision February 2009; revised May 2015.

Keywords: Definitions, Drawbars, Hitches, Implements, Operating, Power takeoff, Safety

1 Purpose and Scope

1.1 This Standard was prepared to assist manufacturers of tractors and implements in providing suitable means of transmitting power from the tractor power take-off to the implement and satisfactory hitching of the implement to the tractor.

1.2 ANSI/ASABE AD500-1:2014, ASABE/ISO 500-2:2004, ANSI/ASABE AD8759-1:1998, and ANSI/ASABE AD8759-2:1998 provides dimensions relating to the tractor power take-off shaft and PTO shield; provides specifications for the splined power take-off shaft and the mating connector; and establishes and defines power take-off types 1, 2, and 3.

1.3 ANSI/ASABE AD730:2009 W/Amd. 1:2014 sets forth requirements for the attachment of three-point hitch implements or equipment to the rear of agricultural wheel tractors.

1.4 ANSI/ASABE AD6489-3:2004 provides dimensions for the drawbar location and relation to the tractor power take-off shaft.

1.5 The successful performance of all tractor and implement combinations likely to be met in field service require consideration of factors other than the dimensional relationship provided in the aforementioned Standards.

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.

ANSI/ASAE S318, Safety for Agricultural Equipment

ANSI/ASABE AD500-1:2014 FEB2015, Agricultural tractors — Rear-mounted power take-off types 1, 2, 3 and 4 — Part 1: General specifications, safety requirements, dimensions for master shield and clearance zone

ASABE/ISO 500-2:2004 (DEC2010), Agricultural tractors – Rear-mounted power take-off types 1, 2 and 3 – Part 2: Narrow-track tractors, dimensions for master shield and clearance zone

ASABE/ISO 500-3:2014 FEB2015, Agricultural tractors — Rear-mounted power take-off types 1, 2, 3 and 4 — Part 3: Main PTO dimensions and spline dimensions, location of PTO