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Power Take-off Definitions and Terminology for Agricultural Tractors



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Proposed by the Advisory Engineering Committee of the Farm and Industrial Equipment Institute; adopted by ASAE as a Recommendation March 1955; reconfirmed December 1961, December 1966; revised May 1967; reconfirmed December 1971; title revised June 1972; reconfirmed December 1976; reclassified as a Standard December 1978; reconfirmed December 1983, December 1988; reaffirmed December 1993, December 1998, February 2004, February 2009; reaffirmed December 2013.

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1 Purpose and Scope

1.1 This Standard deals only with the definitions and terminology pertaining to the power shafts of farm tractors in which the power take-off rotational speed is proportional to the engine speed. This is the type that prevails in the United States, Canada, England, and generally throughout the world. The following terminology will facilitate a clear understanding for engineering discussions, comparisons and the preparation of technical papers.

2 Terminology

2.1 clutch, master: The term “master clutch” is generally used to describe a clutch which transmits all power from the engine and controls both travel and the power take-off. Likewise, when disengaged, both stop.

2.2 power take-off, continuous-running: Power to operate both the transmission and the power-take-off is transmitted through a master clutch. Both operate only when the master clutch is engaged. Auxiliary means are provided for stopping the travel of the tractor without stopping the power-take-off. The continuous-running power take-off ceases to operate at any time when the master clutch is disengaged.

2.3 power take-off, independent: Power to operate the transmission and power take-off is transmitted through independent transmission and power-take-off clutches. Travel of the tractor may be started or stopped by operation of the transmission clutch without affecting operation of the independent power take-off. Likewise, the power take-off may be started or stopped by the power take-off clutch without affecting tractor travel.

2.4 power take-off, transmission-driven: Power to operate both the transmission and the power take-off is transmitted through a master clutch, which serves primarily as a traction clutch. The power take-off operates only when the master clutch is engaged. The transmission-driven power take-off ceases to operate at any time the master clutch is disengaged.