

AUXILIARY POWER TAKE-OFF DRIVES FOR AGRICULTURAL TRACTORS

Foreword—This reaffirmed document has been changed only to reflect the new SAE Technical Standards Board format.

1. **Scope**—This SAE Standard establishes specifications for mid- and side-power take-off drives that will be helpful in designing implements. Design of the implement attaching means must be tailored to each tractor, depending on attaching points available and the exact location of the auxiliary shaft.

2. References

2.1 **Applicable Documents**—The following publications form a part of this specification to the extent specified herein. The latest issue of SAE publications shall apply.

2.1.1 **SAE PUBLICATIONS**—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE J721—Operating Requirements for Tractors and Power Take-Off Driven Implements

SAE J1170—Rear Power Take-Off for Agricultural Tractors

2.2 **Definition**—Auxiliary Power Take-Off (Aux. PTO)—An external shaft on an agricultural tractor, other than the rear or front PTO, to provide rotational power to implements that are usually mid- or side-mounted.

3. Specifications

3.1 The Aux. PTO shall conform to SAE Standard J1170.

3.1.1 Shafts, to the dimensions of 1000 rpm PTO, 35 mm (1-3/8 in) diameter, involute splines.

3.1.2 A minimum spherical clearance radius of 82.6 mm (3.25 in) with sufficient openings to allow for equipment drives.

3.1.3 Shielding similar to the power take-off shield.

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3.2 The ability of the Aux. PTO shaft to withstand bending loads and thrust forces shall conform to SAE J721.

3.3 Position, location, and direction of rotation of the Aux. PTO shaft are shown in Table 1.

TABLE 1—PTO AUXILIARY SHAFT POSITION, LOCATION, AND ROTATION DIRECTION

	Mid	Right	Left
Position	Extends forward parallel to rear power take-off shaft	Right side of tractor extending to right when viewed from driver's station	Left side of tractor extending to left when viewed from driver's station
Location	Within zone extending 254 mm (10 in) to both the right and the left of the centerline of the tractor	No recommendation	No recommendation
Direction of Rotation	Clockwise (when facing direction of forward travel)	Clockwise (when viewed from outer end of shaft)	Counterclockwise (when viewed from outer end of the shaft)

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