

Couplings and clearance envelope for automobile power take-offs

1. Scope

This standard specifies the couplings and clearance of Power Take-Offs (hereinafter referred to as "PTO") fitted to the sides of automobile transmissions.

Remark: Applicable standards for this standard are shown as follows.

- JIS B 1301** Sunk keys and their corresponding keyways
- JIS B 1302** Woodruff keys and their corresponding keyways
- JIS B 1602** Involute serrations
- JIS D 2001** Involute spline for automobiles

2. Shapes and dimensions of shaft and coupling

2.1 Shapes and dimensions of shaft

The shapes and dimensions of the shaft shall be in accordance with **Table 1**.

Table 1 Shapes and dimensions of shaft

Type	Shape	Dimension
Type A ⁽¹⁾	Key, keyway	Shall be in accordance with Attached table 1 .
Type B ⁽²⁾	Screw thread, key, keyway	
Type C ⁽³⁾	Screw thread, spline	

- Notes** ⁽¹⁾ Straight type
⁽²⁾ Taper type
⁽³⁾ Spline type

2.2 Shapes and dimensions of coupling

The shapes and dimensions of the coupling shall be in accordance with **Table 2**.

Table 2 Shapes and dimensions of coupling

Type	Shape	Dimension
Type A ⁽⁴⁾	Keyway	Shall be in accordance with Attached table 2 .
Type B ⁽⁵⁾	Keyway	
Type C ⁽⁶⁾	Spline	

- Notes** ⁽⁴⁾ Straight type
⁽⁵⁾ Taper type
⁽⁶⁾ Spline type

3. Clearance envelopes for the removal of PTO and at the rear of PTO

3.1 Clearance envelope for the removal of PTO

The clearance envelope for the removal of PTO shall be in accordance with **Table 3**.

Table 3 Shapes and dimensions of coupling

Shape	Dimension
Type A ⁽⁷⁾	Shall be in accordance with Attached fig. 1 .
Type B ⁽⁸⁾	

- Notes** ⁽⁷⁾ When the mating gear of PTO protrudes from the transmission opening side face.
⁽⁸⁾ When the mating gear of PTO is inside the transmission opening side face.

3.2 Clearance envelope at the rear of PTO

The clearance envelope at the rear of PTO shall be in accordance with **Table 4**.

Table 4 Clearance at the rear of PTO

Shape	Dimension
Type A ⁽⁹⁾	Shall be in accordance with Attached fig. 2 .
Type B ⁽¹⁰⁾	Shall be in accordance with Attached fig. 3 .

- Notes** ⁽⁹⁾ ; When a single pump is used.
⁽¹⁰⁾ ; When a double pump is used.

Reference standard:
JASO C205-91 Side openings for automobile power take-offs.