

ASAE/ISO 9191:1991 OCT2001 (R2017)  
Lawn and garden ride-on (riding) tractors — Three-point hitch



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# ASAE/ISO 9191:1991 OCT2001 (R2017)

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## Lawn and garden ride-on (riding) tractors — Three-point hitch

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### 1 Scope

This International Standard specifies the requirements for the connection of implements or attachments to the rear of lawn and garden ride-on (riding) tractors by means of a three-point free link hitch in association with a power lift.

It applies to lawn and garden ride-on (riding) tractors as defined below.

### 2 Definition

For the purposes of this International Standard, the following definition applies.

**2.1 ride-on (riding) machine; lawn and garden tractor; turf (riding) tractor:** Self-propelled machine on which an operator rides, designed primarily for cutting grass and auxiliary garden work. The cutting means may be an integral part of the machine or suspended from or attached to the machine.<sup>1)</sup>

**2.2 attachment:** Optional assembly of components that can be mounted on a lawn and garden ride-on (riding) tractor for a specific use.

#### 2.3 General

**2.3.1 linkage:** Combination of one upper link and two lower links, each articulated to the tractor and the implement at opposite ends, in order to connect the implement to the tractor.

**2.3.2 hitch point:** Articulated connection between a line and the implement. For geometrical analysis, the hitch point is established as the centre of the articulated connection between a link and the implement.

1) For the convenience of the user of this International Standard, this definition is repeated from ISO 5395:1990 (definition 1.3.49).

**2.3.3 link point:** Articulated connection between a link and the tractor. For geometrical analysis, the link point is established as the centre of the articulated connection between a link and the tractor.

## 2.4 Linkage components (see Figure 1 and Figure 2)

**2.4.1 upper link ①; lower link ②:** Elements as appropriate in the linkage, each fitted with an articulated connection at both ends.

**2.4.2 upper hitch point ③:** Articulated connection between the upper link and the implement.

**2.4.3 upper link point ⑤:** Articulated connection between an upper link and the tractor.

**2.4.4 lower hitch point ④:** Articulated connection between a lower link and the implement.

**2.4.5 lower link point ⑥:** Articulated connection between a lower link and the tractor.

**2.4.6 upper hitch pin ⑦:** Pin, usually detachable and forming part of the upper link assembly, that connects the upper link to the implement.

**2.4.7 lower hitch stud or pin ⑧:** Stud or pin attached to the implement, on which a lower link is secured.

**2.4.8 mast ⑨:** Member that provides attachment of the upper link of the implement.

**2.4.9 lift linkage:** Connecting linkage that transmits force to the lower links for raising and lowering implements.

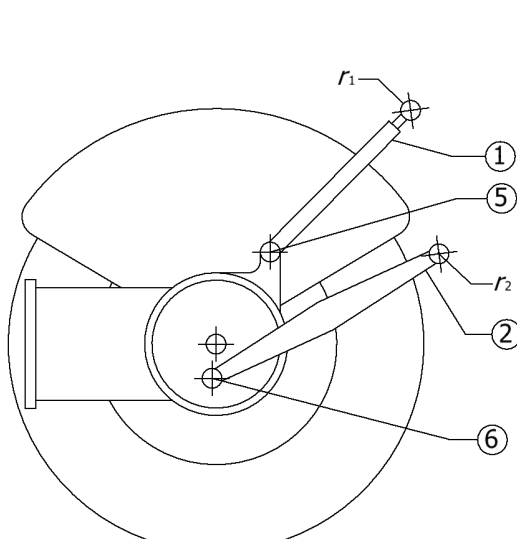


Figure 1 – Tractor linkage

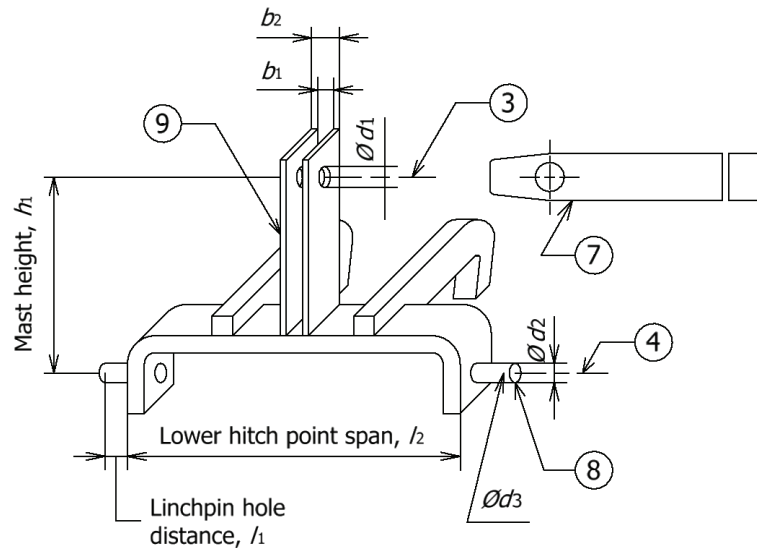


Figure 2 – Implement hitch

## 2.5 Linkage dimensions (see Figure 3)

**2.5.1 mast height:** Perpendicular distance between the upper hitch point and common axis of the lower hitch points.

**2.5.2 levelling adjustment:** Adjustment of lower links so that the one lower hitch point may be moved vertically with respect to the other lower hitch point to provide an inclination of the implement.

**2.5.3 lower hitch point span:** Distance between lower hitch points measured at the base of the lower hitch stud, or the distance between the innermost restraining means provided on the implement.