
INTERNATIONAL STANDARD



5692

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Agricultural vehicles — Mechanical connections on towed vehicles — Hitch-rings — Specifications

Véhicules agricoles — Liaisons mécaniques entre véhicules — Anneaux d'attelage — Spécifications

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Descriptors : agricultural machinery, tractors, trailers, couplings, interchangeability, dimensions.

FOREWORD

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 5692 was developed by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, and was circulated to the member bodies in March 1977.

It has been approved by the member bodies of the following countries :

Australia	Germany, F.R.	Poland
Austria	India	Portugal
Belgium	Iran	Romania
Brazil	Italy	South Africa, Rep. of
Canada	Korea, Dem. P. Rep. of	Spain
Chile	Korea, Rep. of	Switzerland
Czechoslovakia	Mexico	Turkey
Denmark	New Zealand	United Kingdom
France	Philippines	U.S.S.R.

The member body of the following country expressed disapproval of the document on technical grounds :

Bulgaria

Agricultural vehicles – Mechanical connections on towed vehicles – Hitch-rings – Specifications

0 INTRODUCTION

The purpose of this International Standard is to ensure the interchangeability of the mechanical connections on agricultural towed vehicles.

1 SCOPE

This International Standard specifies the requirements for the attachment of agricultural towed vehicles by means of ring type hitches.

2 FIELD OF APPLICATION

This International Standard applies to agricultural trailers and to agricultural implements attached to the rear of the towing vehicle.

The ring hitches specified in this International Standard may be employed on all balanced and non-balanced trailers used in agricultural work, provided that they are made of appropriate material, have adequate strength, wear resistance and sufficient shank thickness for the category of the towing vehicle and the type, size and load characteristics of the vehicles to which they are fitted.

3 REFERENCES

ISO 6489/I, *Agricultural vehicles – Mechanical connections between vehicles – Part I : hook type.*¹⁾

ISO 6489/II, *Agricultural vehicles – Mechanical connections between vehicles – Part II : clevis type.*¹⁾

4 OPERATING CONDITIONS

4.1 a) : For coupling point above the centre-line of the rear axle of the tractor.

4.2 b) : For coupling point below the centre-line of the rear axle and of the power take-off of the tractor.

5 INTERCHANGEABILITY DIMENSIONS

5.1 Hitch rings and shanks

Rings, which shall be substantially toroidal, shall be manufactured by forging; shanks shall be forged and/or machined.

The rings shall have the dimensions shown in figure 1.

NOTE – Provided that the attachment on the towing vehicle complies with ISO 6489/I or ISO 6489/II.

5.2 Travel angles of the trailer tow bar (figure 2)

When the trailer tow bar, fitted with the hitch ring described in 5.1, is fixed to the tractor attachment, the tow bar shall be free to turn so that the angles formed with the horizontal situated in the plane of symmetry of the tractor and passing through the coupling point, have the following minimum values :

NOTE – It is understood that the ring is fixed on the tow bar and that the towing attachment on the tractor shall be designed to allow for the above travel angles.

5.2.1 Angle of yaw : Rotation around a vertical axis passing through the coupling point, minimum value : 60° on both sides.

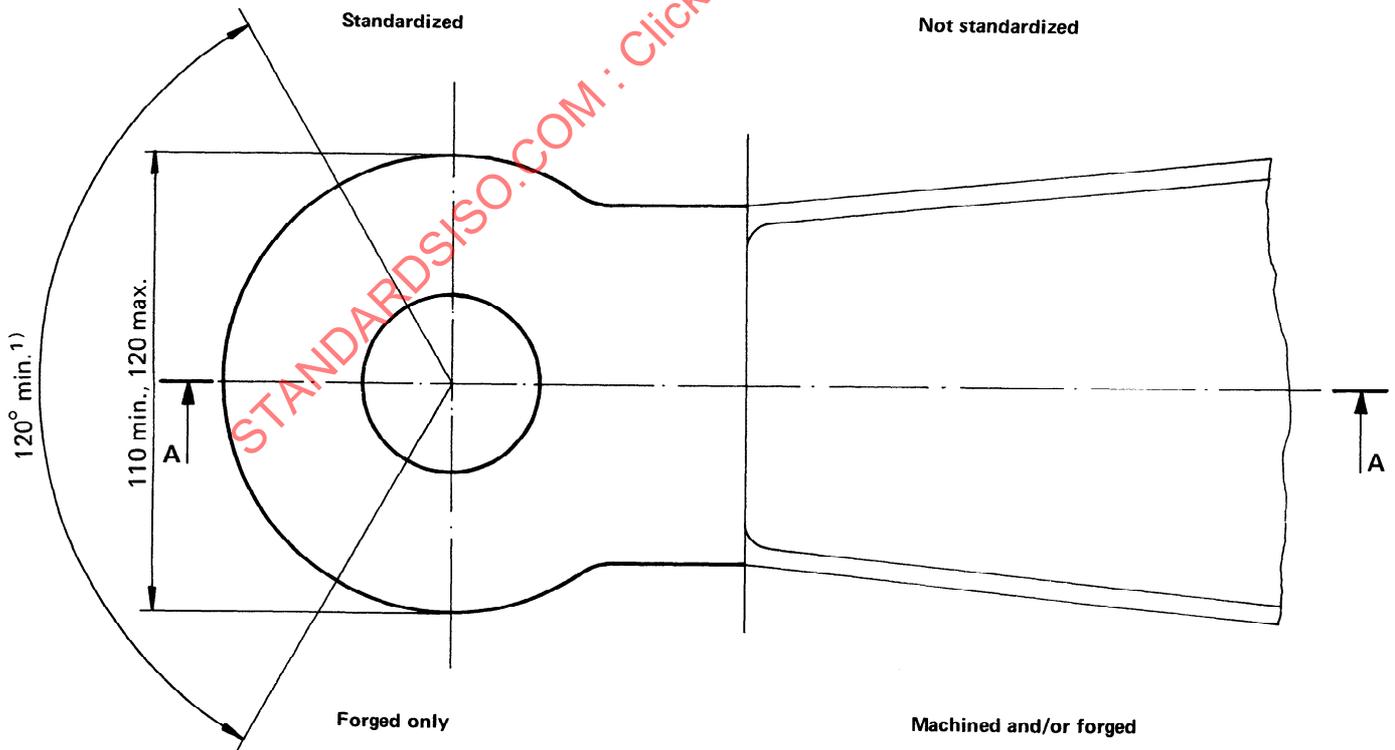
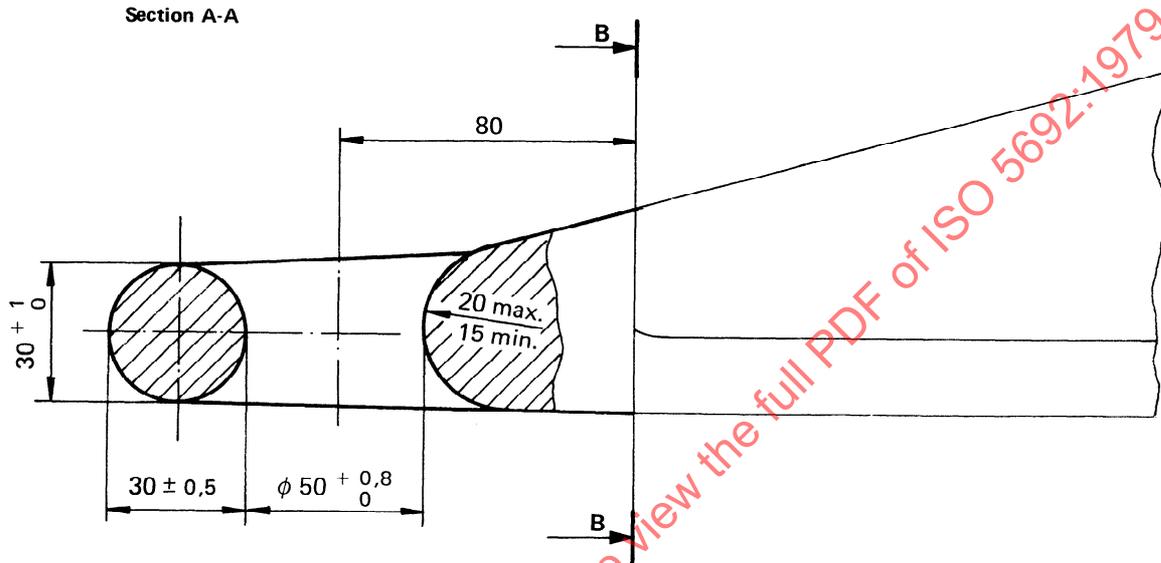
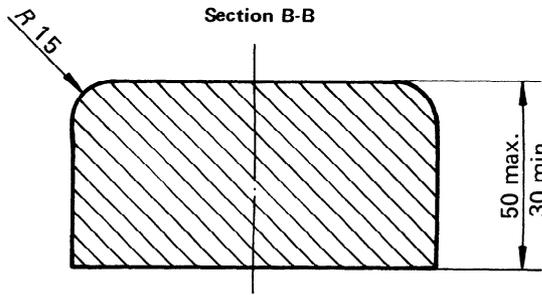
5.2.2 Angle of pitch : Rotation around a horizontal axis passing through the coupling point and perpendicular to the longitudinal plane of symmetry of the vehicle, minimum value : 20° top and bottom.

5.2.3 Angle of roll : Rotation around a horizontal axis passing through the coupling point and located in the plane of symmetry of the vehicle, minimum value : 20° top and bottom.

It is understood that the ring is fixed on the tow bar and that the towing attachment on the tractor shall be designed to allow for the above travel angles.

1) At present at the stage of draft.

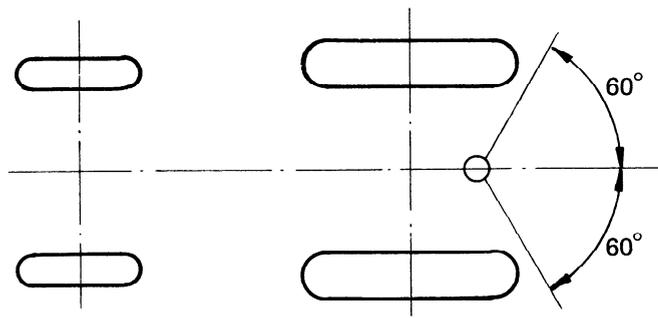
Dimensions in millimetres



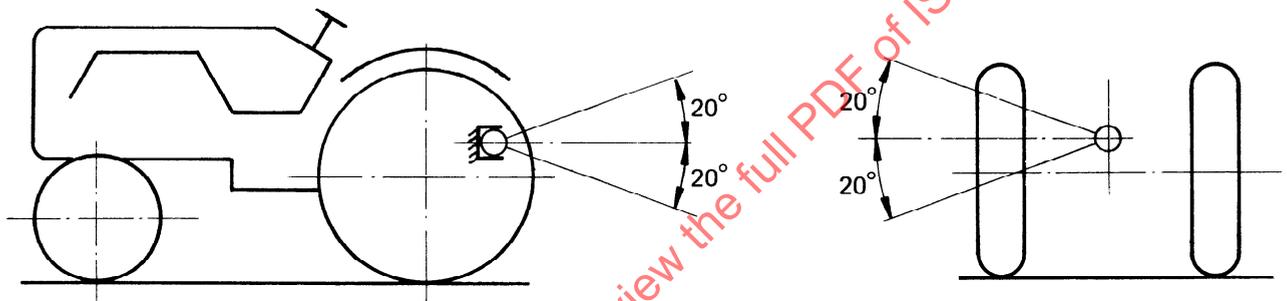
The portion shown by fine lines is left to the choice of the manufacturer.

- 1) Zone of ring having a constant section of diameter 30 to permit a turning angle of 60° either side of the longitudinal centre line.

FIGURE 1 – Dimensions of hitch rings



Angle of yaw



Angle of pitch

Angle of roll

FIGURE 2 – Minimum angles of articulation of tow bar

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