

INTERNATIONAL STANDARD

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Agricultural tractors and machinery — General purpose quick-action hydraulic couplers

*Tracteurs et matériels agricoles — Coupleurs hydrauliques à usage
général*



Reference number
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Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 5675 was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Subcommittee SC 4, *Tractors*.

This second edition cancels and replaces the first edition (ISO 5675:1981). A second coupler size has been adopted and some requirements adapted to ISO 7241-1:1987.

Annex A of this International Standard is for information only.

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Agricultural tractors and machinery — General purpose quick-action hydraulic couplers

1 Scope

This International Standard specifies the essential interface dimensions and the operating requirements for hydraulic couplers employed to transmit hydraulic power from agricultural tractors to agricultural machinery. It applies to couplers used in hydraulic lines other than those used for braking circuits (which are covered by ISO 5676[1]). These couplers need to be connected and disconnected frequently to allow the transfer of machinery from one tractor to another.

2 Normative reference

The following standard contains provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 7241-2:1986, *Hydraulic fluid power — Quick-action couplings — Part 2: Test methods*.

3 Definitions

For the purposes of this International Standard, the following definitions apply.

3.1 coupler female part: That part which has a cavity to receive the male part.

3.2 coupler male part: Probe which fits and locks into the cavity in the female part.

4 Requirements

4.1 Dimensional requirements

The coupler shall comply with the dimensions shown in figure 1 and given in table 1. Any female part shall couple with any male part where both conform to this International Standard. In figure 1, diameter d_6 , over the length l_8 , shall pass through a 31 mm diameter ring for size 12,5 and a 38 mm diameter ring for size 20 to be compatible with dust protection devices.

NOTE 1 The size designation corresponds to the nominal inside diameter of the hose recommended for use with the coupling, specified in ISO 4397[2].

Similar couplers are described in ISO 7241-1[3]; however, couplers conforming to ISO 7241 do not conform to ISO 5675.

4.2 Operating requirements

4.2.1 The pressure drop through the coupler shall not be greater than 0,35 MPa (3,5 bar) with a flow of 45 l/min for size 12,5 and of 70 l/min for size 20. The pressure drop shall be measured in accordance with ISO 7241-2.

This International Standard's requirements mean that two coupler parts, one having a conical and the other a ball valve may be coupled together. In this case, care should be taken to ensure that the requirements above are fulfilled.

4.2.2 The maximum operating pressure shall be 25 MPa (250 bar). The male part of the disconnected coupler shall withstand a pressure of 70 MPa (700 bar).