

INTERNATIONAL STANDARD

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Tractors and machinery for agriculture and forestry — Linch pins and spring pins — Dimensions and requirements

*Tracteurs et matériels agricoles et forestiers — Goupilles à abattant et
goupilles-ressorts — Dimensions et exigences*



Reference number
ISO 7072:1993(E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

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 7072 was prepared by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, Sub-Committee SC 5, *Equipment for working the soil*.

This second edition cancels and replaces the first edition (ISO 7072:1982), which has been extended to include spring pins, and requirements for both pins.

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International Organization for Standardization

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Tractors and machinery for agriculture and forestry — Linch pins and spring pins — Dimensions and requirements

1 Scope

This International Standard specifies the dimensions and certain requirements for linch pins and spring pins, which are used for the three-point hitch and for numerous fastening purposes in farm work and agricultural equipment.

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 683-14:1992, *Heat-treatable steels, alloy steels and free-cutting steels — Part 14: Hot-rolled steels for quenched and tempered springs*.

3 Linch pins

3.1 Dimensions

Dimensions of linch pins shall be in accordance with figure 1 and table 1.

3.2 Requirements

The material of linch pins shall have a tensile strength of at least 500 N/mm^2 , and be so chosen that a linch pin can be bent 30° against a 5 mm radius without showing any cracks (see figure 2).

The pre-stress, F , of the spring-retaining device shown in figure 1 shall be 20 N to 30 N. The spring-retaining device shall withstand being opened 10 000 times without a noticeable reduction in pre-stress.

As regards finish of linch pins, any anti-corrosive treatment shall be by agreement with the manufacturer.

4 Spring pins

4.1 Dimensions

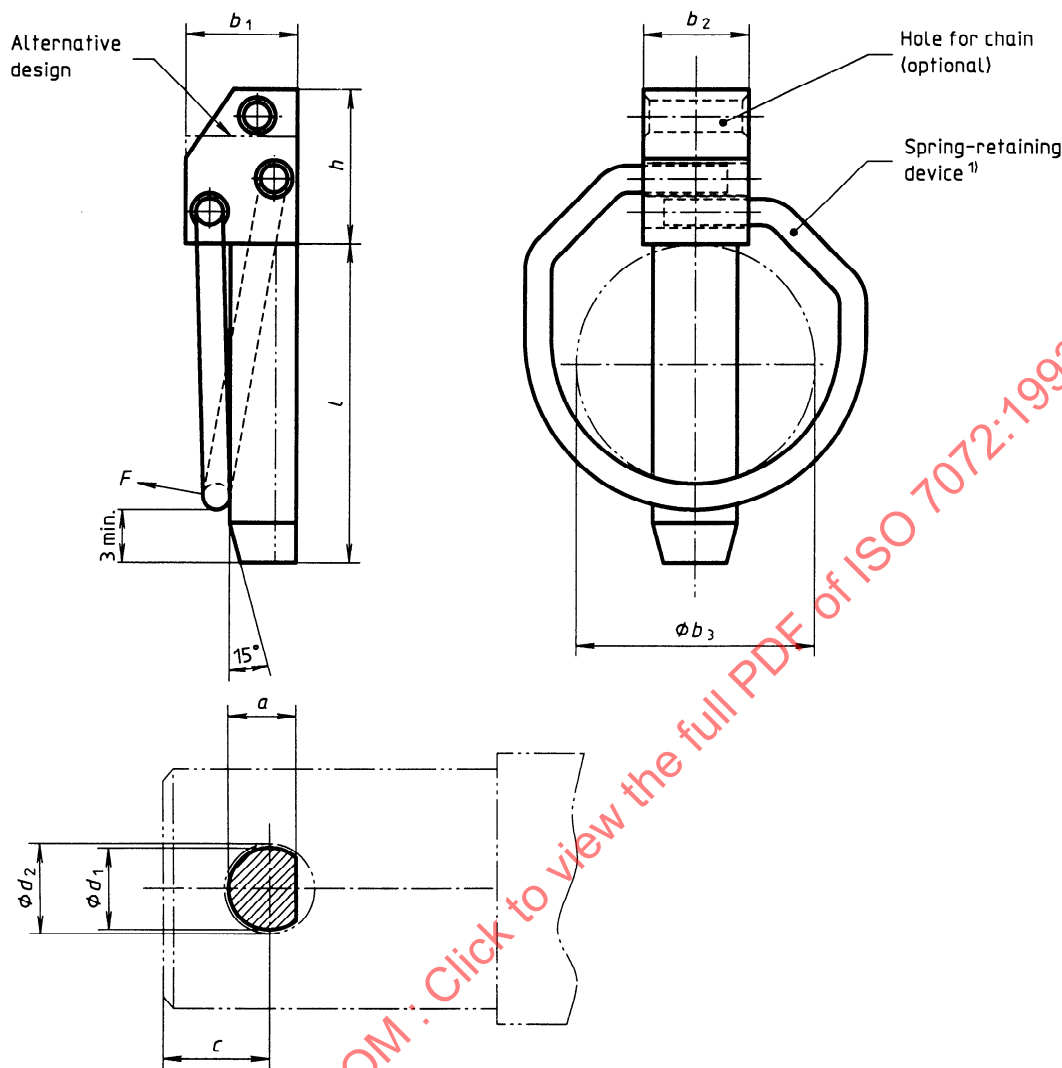
Dimensions of spring pins shall be in accordance with figure 3 and table 2.

4.2 Requirements

The material of spring pins shall be spring steel of type ... as specified in ISO 683-14:1992.

As regards finish of spring pins, any anti-corrosive treatment shall be by agreement with the manufacturer.

Dimensions in millimetres



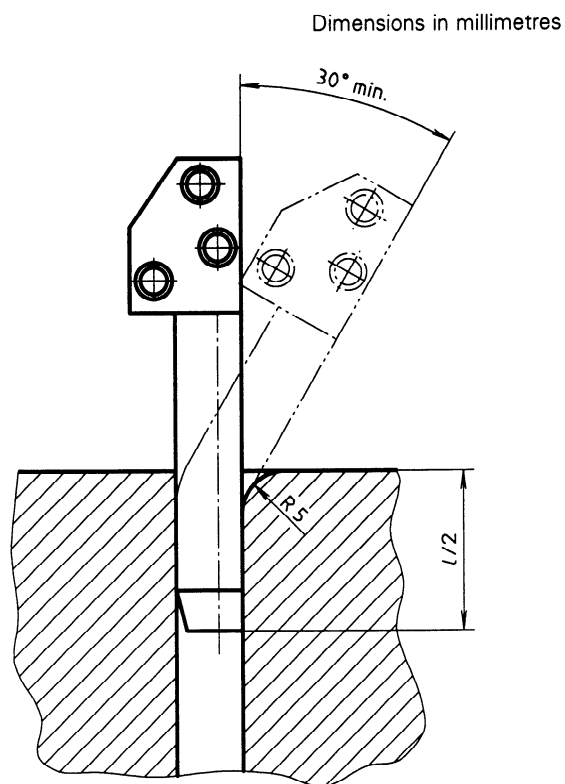
1) Configuration of the ring is optional, but shall ensure that it does not rotate.

Figure 1 — Dimensions of linch pins

Table 1 — Dimensions of linch pins

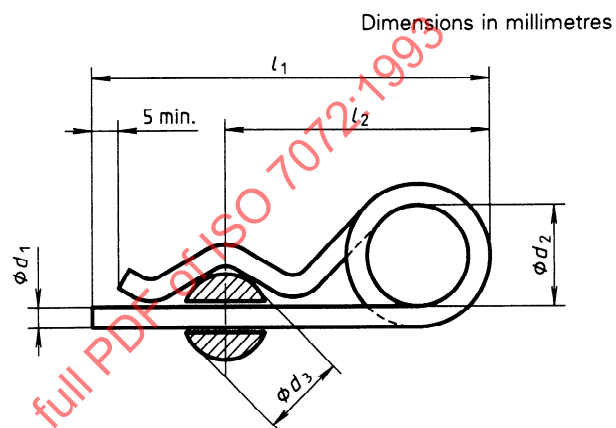
Dimensions in millimetres

Nominal size	d_1	d_2	a	b_1		b_2 max.	b_3 min.	h max.	l	c max.
				min.	max.					
6	5,5 $\begin{smallmatrix} +0,3 \\ -0,2 \end{smallmatrix}$	6	—	8	14	8	32	22	42	10
8	7,5 $\begin{smallmatrix} +0,3 \\ -0,2 \end{smallmatrix}$	8	7	9	15	9	32	22	42	12
10	9,5 $\begin{smallmatrix} +0,3 \\ -0,2 \end{smallmatrix}$	10	8	10	15	12	32	22	45	14
12	11 $\pm$ 0,5	12	9	11	15	14	34	22	45	18
							45		55	
17	16 $\pm$ 0,5	17	12,5	14	21	20	45	29	60	21



NOTE — Values for l are given in table 1.

Figure 2 — Fixture for bending test



NOTE — The eye of the spring pin may have one or more coils.

Figure 3 — Dimensions of spring pins

Table 2 — Dimensions of spring pins

Dimensions in millimetres

Nominal size	d_1	d_2	d_3 ¹⁾		l_1 $+3$ 0	l_2 approx.
			min.	max.		
2 × 40	2	9	9	12	41	23
3 × 70	3	13	12	18	67	40
4 × 75	4	19	15	22	75	50
5 × 105	5	26	18	24	105	65
6 × 115	6	31	24	35	117	70
7 × 150	7	36	34	58	150	108
8 × 150	8	35	40	55	150	88

1) Recommended dimensions

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