UDC 621.886.156 October 1992

Coiled, light duty spring-type straight pins

(ISO 8751 : 1987)
English version of DIN EN 28 751

DIN
EN 28 751

This standard incorporates the English version of ISO 8751.

Spiralspannstifte; leichte Ausführung
(ISO 8751 : 1987)

European Standard EN 28 751 : 1992 has the status of a DIN Standard.

A comma is used as the decimal marker.

National foreword

The publication of this standard is in keeping with a decision made by CEN/TC 185 to adopt, without alteration, a series of ISO Standards covering spring-type straight pins as European Standards. The responsible German body involved in their publication is the *Normenausschuß Mechanische Verbindungselemente* (Fasteners Standards Committee).

As a consequence, all DIN Standards covering such pins have been superseded by the corresponding DIN EN Standards (see table below).

EN Standard	DIN EN Standard	Title	Previous DIN Standard
28 748	28 748	Coiled, heavy duty spring-type straight pins	8748
28 750	28 750	Coiled, standard duty spring-type straight pins	8750
28 751	28 751	Coiled, light duty spring-type straight pins	—

The DIN Standards corresponding to the ISO Standards referred to in clause 2 of the EN are as follows:

ISO Standard	DIN Standard
ISO 3269	DIN ISO 3269 (at present at the stage of draft)
ISO 8748	DIN EN 28 748
ISO 8749	DIN EN 28 749
ISO 8750	DIN EN 28 750

The DIN 4000-9-1 tabular layout of article characteristics applies for spring-type straight pins as covered here.

Standards referred to

(and not included in **References**)

DIN 4000 Part 9	Tabular layout of article characteristics for bolts, screws, pins, rivets, keys, and lock washers
DIN EN 28 748	Coiled, heavy duty spring type straight pins
DIN EN 28 749	Determination of shear strength of pins
DIN EN 28 750	Coiled, standard duty spring-type straight pins

International Patent Classification

F 16 B 21/02

EN comprises 5 pages.

1 Scope and field of application

This International Standard specifies the characteristics of light duty coiled spring-type straight pins with metric dimensions and nominal diameters, d_1, from 1,5 to 8 mm inclusive.

NOTE — Spring-type straight pins, coiled, standard duty, and spring-type straight pins, coiled, heavy duty are the subjects of ISO 8748 and ISO 8750 respectively.

2 References

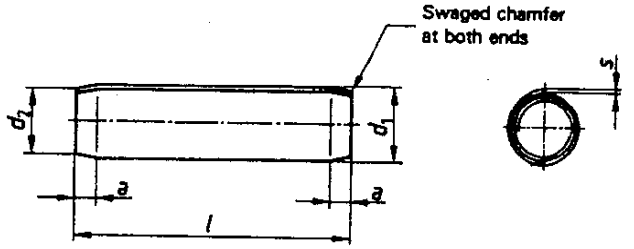
ISO 3269, *Fasteners — Acceptance inspection.*

ISO 8748, *Spring-type straight pins — Coiled, heavy duty.*

ISO 8749, *Pins and grooved pins — Shear test.*

ISO 8750, *Spring-type straight pins — Coiled, standard duty.*

3 Dimensions



Dimensions in millimetres

d_1	before mounting	nom.	1,5	2	2,5	3	3,5	4	5	6	8
		min.	1,62	2,13	2,65	3,15	3,67	4,2	5,2	6,25	8,3
		max.	1,75	2,28	2,82	3,35	3,87	4,45	5,5	6,55	8,65
d_2	before mounting	max.	1,4	1,9	2,4	2,9	3,4	3,9	4,85	5,85	7,8
a		=	0,5	0,7	0,7	0,9	1	1,1	1,3	1,5	2
s			0,08	0,11	0,14	0,17	0,19	0,22	0,28	0,33	0,45
Minimum shear strength, double, kN			0,8	1,5	2,3	3,3	4,5	5,7	9	13	23

l[1] nom.	l[1] min.	l[1] max.
4	3,75	4,25
5	4,75	5,25
6	5,75	6,25
8	7,75	8,25
10	9,75	10,25
12	11,5	12,5
14	13,5	14,5
16	15,5	16,5
18	17,5	18,5
20	19,5	20,5
22	21,5	22,5
24	23,5	24,5
26	25,5	26,5
28	27,5	28,5
30	29,5	30,5
32	31,5	32,5
35	34,5	35,5
40	39,5	40,5
45	44,5	45,5
50	49,5	50,5
55	54,25	55,75
60	59,25	60,75
65	64,25	65,75
70	69,25	70,75
75	74,25	75,75
80	79,25	80,75
85	84,25	85,75
90	89,25	90,75
95	94,25	95,75
100	99,25	100,75
120	119,25	120,75

Range of commercial lengths

1) For nominal lengths above 200 mm, steps of 20 mm.

4 Application

The bore diameter of the spring pin hole shall be equal to the nominal diameter, d_1, of the mating pin, and to tolerance H12.

5 Specifications and reference International Standards

Material	St = steel meeting the following analyses [% (*m/m*)] : C > 0,64 Mn > 0,60 Si > 0,15 Cr > 0,50 (opt.) P < 0,04 S < 0,05 Hardened and tempered to a Vickers hardness 420 to 520 HV. Other materials as agreed between customer and supplier.
Surface finish	Plain, i.e. pins to be supplied in natural finish, treated with a protective lubricant, unless otherwise specified by agreement between customer and supplier.
	Appropriate plating or coating processes should be employed to avoid hydrogen embrittlement. When pins are electroplated or phosphate-coated, they shall be suitably treated immediately after plating or coating to obviate detrimental hydrogen embrittlement, although freedom from hydrogen embrittlement is not guaranteed. Preferred coatings are chemical black oxide or non-electrolytic zinc plating. Other coatings as agreed between customer and supplier. All tolerances shall apply prior to the application of a plating or coating.
Workmanship	Parts shall be uniform in quality and free of irregularities or detrimental defects. No burrs shall appear on any part of the pin.
Shear strength test	The test shall be in accordance with ISO 8749.
Acceptability	The acceptance procedure is covered in ISO 3269.

6 Designation

Example for the designation of a steel spring-type straight pin, coiled, light duty, with nominal diameter d_1 = 6 mm and nominal length l = 30 mm :

Spring pin ISO 8751 - 6 × 30 - St