COILED SPRING PINS
METRIC SERIES
(Superseded)

This standard has been superseded by CNH Standard Parts, STPJ580 (87366822), Coiled Spring Pins - Metric - Preferred and Non-Preferred.

The controlled versions of CNH specifications and standards are published on the CNH Intranet site.

The documents are also available on the CNH electronic viewing system (e.g. eViewer). Suppliers are able to access these documents on CSCN (CNH Supplier Communications Network).

The superseded standard remains available for viewing following this page if needed.

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GENERAL SPECIFICATIONS

GENERAL: This specification covers performance, dimensions, physical properties, and method of testing heavy duty coiled spring pins. They shall conform essentially with ISO 8748 and IFI 512-C heavy duty series only.

PREFERRED PARTS POLICY: Preferred parts are so designated to reduce variety of parts and assure maximum availability, interchangeability, and cost savings.

Types: Coiled, Heavy Series
Material Carbon Steel
Finish: Plain (PLN)

MATERIAL AND HARDNESS: Hardness shall be tested in the following manner: Coiled pins shall be ground or cut in half along the longitudinal axis and the hardness readings shall be taken on the inside surface of the outer half coil. The table below designates materials and the proper Rockwell scale to be used for the various wall thickness ranges.

Wall Thickness Range	Up to 0.25 mm	Over 0.25 mm Up to 0.63 mm	Over 0.63 mm Up to 1.27 mm	Over 1.27 mm Up to 2.39 mm
Hardness Scale	DPH* (10 kg)	Rockwell 15n	Rockwell A	Rockwell C
Material				
SAE 1070 - 1095 Carbon Steel	458 - 562	83.6 - 87	73.6 - 78	46 - 53

*Diamond pyramidal hardness.

FINISHES: Spring pins shall be supplied plain or plated in accordance with Case Material Specifications and class listed below:

Plain (PLN)
Zinc Chromate (ZND) MS201 Class 5B

High tensile strength steel components such as spring pins are more susceptible to embrittlement by hydrogen. Therefore, electroplating is not recommended for these products. However, if chemical of electrochemical surface coating cannot be avoided, the plated spring pin must be heated at a temperature sufficiently high and for a period sufficiently long enough to remove the hydrogen.

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STRAIGHTNESS: Straightness of pins shall be within the limits necessary to permit pins to fall through a ring gage by their own weight. Ring gage dimensions shall be as specified below:

Dimensions in millimetres.

Pin Length	Gage Length		Gage Hole Diameter	
	Max	Min	Min	Max
To a incl 25	25.15	24.85	Specified Pin Diameter, Max Plus 0.18	Specified Pin Diameter, Max Plus 0.20
over 25 to 50	50.15	49.85	0.30	0.34
over 50	75.15	74.85	0.42	0.48

WORKMANSHIP: Spring pins shall be free from burrs, loose scale, seams, notches, sharp edges, or other defects which might affect their serviceability.

PERFORMANCE: Pins shall be capable of withstanding the double shear loads specified in the dimensional table.

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Nominal sizes, length increment, and tolerances:

Nom Length	Length Tol	Nominal Pin Size													
	Plus	1.5	2	2.5	3	3.5	4	5	6	8	10	12	14	16	20
4	0.5	X	X												
5	for all	X	X	X											
6	lengths	X	X	X	X	X									
8	thru	X	X	X	X	X	X								
10	10 mm	X	X	X	X	X	X	X							
12		X	X	X	X	X	X	X	X						
14		X	X	X	X	X	X	X	X						
16		X	X	X	X	X	X	X	X	X					
18		X	X	X	X	X	X	X	X	X					
20	1.0	X	X	X	X	X	X	X	X	X	X				
22	for all	X	X	X	X	X	X	X	X	X	X				
25	lengths	X	X	X	X	X	X	X	X	X	X	X			
28	over		X	X	X	X	X	X	X	X	X	X	X		
30	10 mm		X	X	X	X	X	X	X	X	X	X	X		
32	thru		X	X	X	X	X	X	X	X	X	X	X	X	
35	50 mm		X	X	X	X	X	X	X	X	X	X	X	X	
40			X	X	X	X	X	X	X	X	X	X	X	X	
45				X	X	X	X	X	X	X	X	X	X	X	X
50					X	X	X	X	X	X	X	X	X	X	X
55							X	X	X	X	X	X	X	X	X
60							X	X	X	X	X	X	X	X	X
65									X	X	X	X	X	X	X
70									X	X	X	X	X	X	X
75									X	X	X	X	X	X	X
80	1.5									X	X	X	X	X	X
85	for all									X	X	X	X	X	X
90	lengths									X	X	X	X	X	X
95	over									X	X	X	X	X	X
100	50 mm									X	X	X	X	X	X
110										X	X	X	X	X	X
120										X	X	X	X	X	X
140												X	X	X	X
160												X	X	X	X
180													X	X	X

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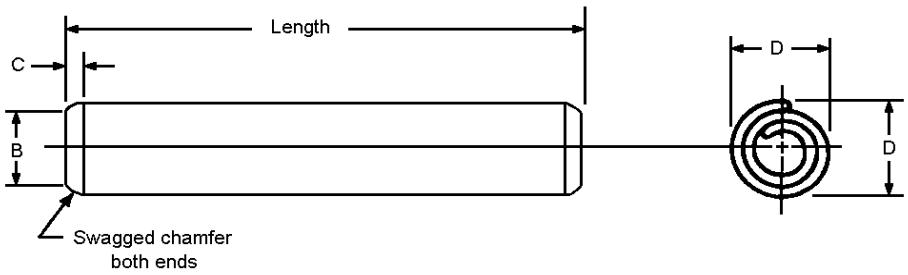

Dimensions in millimetres.

Nom Pin Size	D		B	C	Recommended Hole Size		Pin Stock Thickness	Double Shear Load, kN
	Dia		Chamfer					
	Heavy Duty		Dia	Length			Heavy Duty	
	Max	Min	Max	Ref	Max	Min		Min
1.5 2 2.5	1.71 2.21 2.73	1.61 2.11 2.62	1.4 1.9 2.4	0.5 0.7 0.7	1.60 2.10 2.60	1.50 2.00 2.50	0.17 0.22 0.28	1.8 3.5 5.5
3 3.5	3.25 3.79	3.12 3.64	2.9 3.4	0.9 1.0	3.10 3.62	3.00 3.50	0.33 0.39	7.6 10.0
4 5	4.30 5.35	4.15 5.15	3.9 4.85	1.1 1.3	4.12 5.12	4.00 5.00	0.45 0.56	13.5 20
6 8	6.40 8.55	6.18 8.25	5.85 7.8	1.5 2.0	6.12 8.15	6.00 8.00	0.67 0.90	30 53
10 12	10.65 12.75	10.30 12.35	9.75 11.7	2.5 3.0	10.15 12.18	10.00 12.00	1.10 1.30	84 120
14 16 20	14.85 16.90 21.00	14.40 16.40 20.40	13.6 15.6 19.6	3.5 4.0 1.5	14.18 16.18 20.21	14.00 16.00 20.00	1.60 1.80 2.20	165 210 340