



Standard Parts

Number:	J-015
Date Issued:	B-OCT05

CLEVIS PINS (Superseded)

This standard has been superseded by CNH Standard Parts, STPJ120 (87366667), Clevis Pins - Inch - Non-Preferred.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The superseded standard remains available for viewing following this page if needed.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 standard conforms essentially with ANSI B18.8.1 and SAE J493 for clevis pins.

Some segments of ANSI and SAE standards, encompassed by this general specification may differ. In recognition of these possible differences, the sizes and tolerance ranges used were established in an effort to enable the use of commercially available items, dimensionally interchangeable worldwide.

These clevis pins are intended for use in conjunctions with clevises, rod end eyes and other general applications. The inclusion of dimensional data in this standard is not intended to imply that all the products described are stock production sizes.

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

Material: Hardnend
Finishes: Plain (PLN), Zinc with Chromate (ZND), Phosphate Coated (PHC)

Length for Standard Clevises: See chart below

Preferred Lengths

Diameter	Length	Diameter	Length
3/16	.580	1/2	1.360
1/4	.770	5/8	1.610
5/16	.940	3/4	1.910
3/8	1.060	7/8	2.160
7/16	1.190	1	2.410

SERVICE PARTS SUBSTITUTION POLICY: In the event that engineering does not indicate a "Do not Substitute" in engineering specifications, the following substitutes may be implemented in service.

To be Replaced	Service Replacement
Plain (PLN) Finish	Zinc with Chromate (ZND) or Phosphate Coating (PHC) (if ZND equivalent is not set up for service)
Cadmium (CAD) Finish	Zinc with Chromate (ZND)

TOP OF HEAD: The top of the head shall be flat and either chamfered or rounded at outer periphery.

BEARING SURFACE: The bearing surface of the head shall be flat and square with the axis of pin (determined over a distance from under the head equivalent to 1.5 times the basic pin diameter) within 2 degrees.

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ECCENTRICITY: The head of pin shall not be eccentric with axis of the shank of pin by an amount equal to more than 6 percent of the maximum head diameter or 0.010 inch, whichever is greater.

Eccentricity shall be defined as being one-half the full or total indicator reading.

LENGTH INCREMENTS: The tabulated lengths apply to pins intended for use with standard clevises, without spacers. When required, it is recommended that other pin lengths be limited wherever possible, to nominal lengths in 0.06 inch increments.

LOCATION: The hole location of all clevis pins shall be specified as the distance, measured parallel to the axis of pin, from the bearing surface of the head to the center line of the hole. For pins having lengths other than those tabulated, the limits for H, shall be determined by subtracting reference dimension J, from the maximum and minimum pin length G.

ALIGNMENT AND ANGULARITY: The axis of hole through shank shall not be offset from the axis of pin by more than 0.010 inch for the 3/16 and 1/4 inch nominal pin sizes and 0.020 inch for all larger pin sizes, and shall be square with the axis of pin within 2 degrees.

COUNTERSINK: The hole shall be countersunk or edges otherwise relieved at both ends to remove all burrs.

DIMENSIONS: All dimensions in this standard are in inches. All unspecified detail shall conform to ANSI B18.8.1 or SAE J493.

MATERIAL AND HEAT TREAT: Clevis pins shall be made from steel per Case MS 352, 1010 through 1020; optional AISI 1211.

Pins shall be case hardened as listed below when specified.

<u>Nominal Pin Diameter</u>	<u>Total Case Depth</u>	<u>Specification</u>
0.188-0.750	0.002-0.020	Case harden per Case Spec. P-2 File hard per SAE J864 #58 file
0.875-1.250	0.010-0.020	Case harden per Case Spec. P-2 File hard per SAE J864 #58 file

FINISHES: As designed by part number, pins shall be furnished plain, plated or coated in accordance with Case Engineering Materials Specification and class listing below:

Zinc with Chromate (ZND)	- MS 201 class 5A
Phosphate Coating (PHC)	- MS 91
Cadmium (CAD)	- MS 206 class 5

Where electro-plating of carbon steel parts is such that it might induce hydrogen embrittlement, pins shall be baked or treated in such a manner as to be free of such embrittlement.

WORKMANSHIP: Pins shall not contain imperfections which affect usability or serviceability and shall be free of burrs, seams, laps, loose scale or sharp edges.

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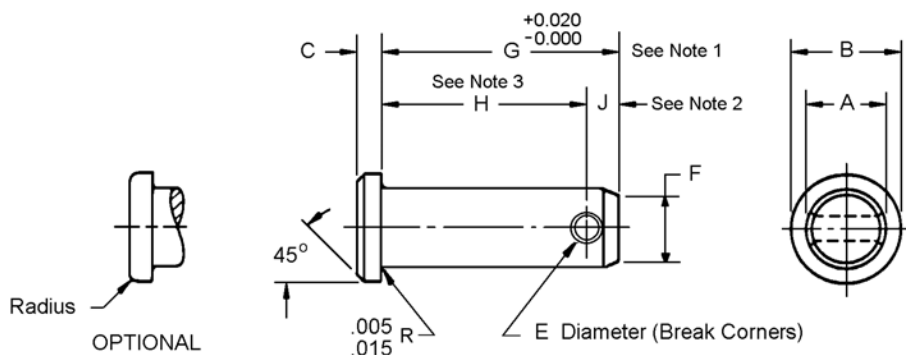
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All dimensions are in inches

Nom. Pin Size	A		B		C		E		F		G		H		J	Cotter Pin Size
	Shank Dia.		Head Dia.		Head Height		Hole Dia.		Point Dia.		Length		Head to Hole		Hole to End	
	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.	max.	min.		
0.188	.186	.181	.320	.300	.070	.050	.088	.073	0.15	0.14	.600	.580	.504	.484	.09	.062
0.250	.248	.243	.380	.360	.100	.080	.088	.073	0.21	0.20	.790	.770	.692	.672	.09	.062
0.312	.311	.306	.440	.420	.100	.080	.119	.104	0.26	0.25	.960	.940	.832	.812	.12	.093
0.375	.373	.368	.510	.490	.130	.110	.119	.104	0.33	0.32	1.080	1.060	.958	.938	.12	.093
0.438	.436	.431	.570	.550	.160	.140	.119	.104	0.39	0.38	1.210	1.190	1.082	1.062	.12	.093
0.500	.496	.491	.630	.610	.160	.140	.151	.136	0.44	0.43	1.380	1.360	1.223	1.203	.15	.125
0.625	.621	.616	.820	.800	.210	.190	.151	.136	0.56	0.55	1.630	1.610	1.473	1.453	.15	.125
0.750	.746	.741	.940	.920	.260	.240	.182	.167	0.68	0.67	1.930	1.910	1.739	1.719	.18	.156
0.875	.871	.866	1.040	1.020	.320	.300	.182	.167	0.80	0.79	2.180	2.160	1.989	1.969	.18	.156
1.000	.996	.991	1.190	1.170	.350	.330	.182	.167	0.93	0.92	2.430	2.410	2.239	2.219	.18	.156
*1.250	1.250	1.240	1.500	1.470	.350	.330	.276	.261			*	*	*	*	.39	.250

- Lengths tabulated are intended for use with standard clevises, without spacers. When required, it is recommended that other pin lengths be limited wherever possible to nominal lengths in 0.06 inch increments.
 - Basic "J" dimensions (distance from center line of hole to end of pin) is specified for calculating hole location from underside of head on pins of lengths not tabulated.
- * 1.250 diameter pin size not covered by ANSI B-18.8.1 or SAE J493 Standards.
Underhead radius .010/.030
If length "G" is 6.0 or longer, then tolerance is ± 0.062
- Tolerance on hole location "H" is equal to pin length "G" tolerance.

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