



Preferred Parts

Number:	C-070
Date Issued:	A-OCT06

ELECTRONIC DOCUMENT IN THE VIEWER IS CONTROLLED. PRINTED COPY IS AN UNCONTROLLED DOCUMENT.

HEXAGON SOCKET SET SCREWS (SUPERSEDED)

This standard has been superseded by CNH Standard Parts, STPC140 (87366935), Hexagon Socket Set Screws Inch.

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The superseded standard remains available for viewing following this page if needed.

Supersedes Issue: C-070	Dated: JUN 89	Page: 1 of 6
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GENERAL SPECIFICATIONS

GENERAL: This standard conforms with the American National Standard ANSI B18.3 for hexagon socket set screws.

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

Sizes: 6, 8, 10, 1/4, 5/16, 3/8, 1/2, 5/8, 3/4
Point: Cup
Thread: UNC 3A
Material: Alloy Steel
Finish: Plain (PLN), Zinc (ZN)
Length Incrementation: 0 to 1/2 inch = 1/16
Over 1/2 to 1 inch = 1/8
Over 1 to 2 inches = 1/4
Over 2 inches = 1/2

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

To Be Replaced

Plain Finish (PLN)

Service Replacement

Because of the superior shelf life, zinc finish (ZN) is recommended for service.

DIMENSIONS: All dimensions in this Standard are in inches. All unspecified detail shall conform to ANSI B-18.3

THREADS: Threads shall be Unified external thread; Class 3A, UNC or UNF Series in accordance with American National Standard, Unified Inch Screw Threads, ANSI B1.1. Class 3A does not provide a plating allowance. When plated products are required, it is recommended that they be procured plated from the manufacturer.

Supersedes Issue: C-070	Dated: JUN 89	Page: 2 of 6
----------------------------	------------------	-----------------



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MATERIAL: Socket set screws shall be fabricated from an alloy steel having alloying elements in sufficient quantity to assure that the hardness range of 45 to 53 HRC is met when screws are hardened by quenching from the austenitizing temperature and tempered. Screws shall conform in all respects to ASTM F 912, Alloy Steel Socket Set Screws.

FINISH: Screws shall be furnished plain, plated, or coated in accordance with Case Engineering Materials Specification.

Plain and Oiled	(PLN)	
Phosphate Coating	(PHC)	MS 91
Zinc	(ZN)	MS 201, Class 4

POINTS: Cup points as furnished by some manufacturers vary in configuration and may be externally or internally knurled. Knurled cup points must be furnished when designated by part number. For variations in cup points, see ANSI B18.3. When specified, screws are to be furnished with flat, oval, half dog, or cone points that conform with specifications in ANSI B18.3.

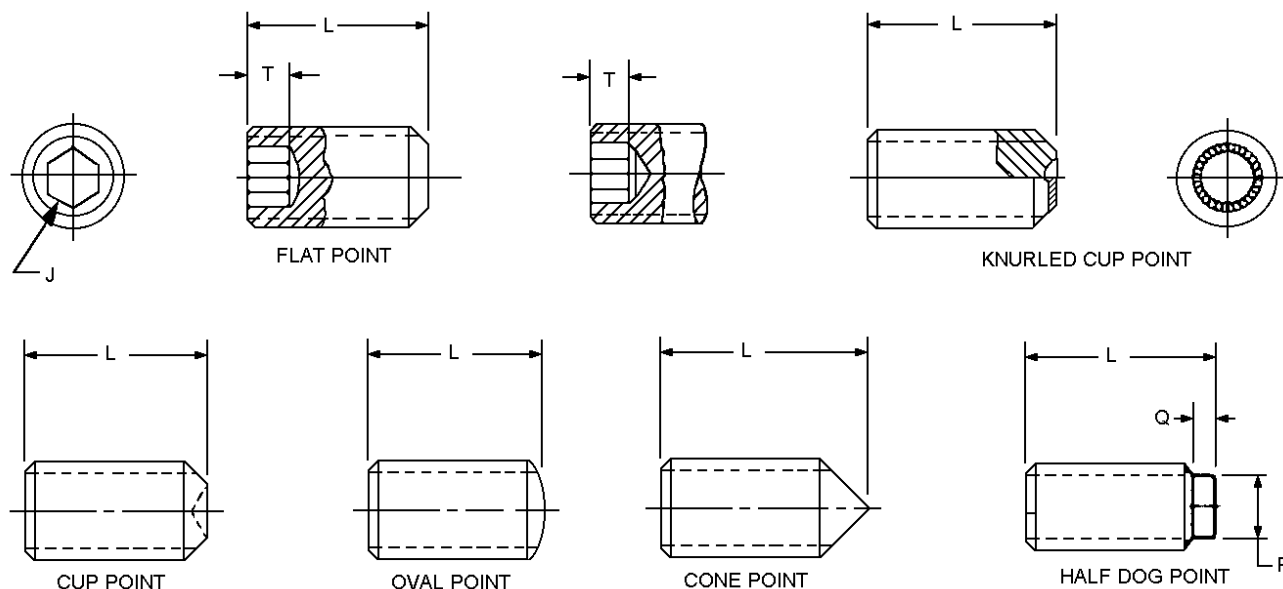
SOCKET DEPTH: Key engagement dimensions shown in this standard shall apply to nominal screw lengths which are equal to or greater than basic diameter of set screw. For shorter set screws, refer to ANSI B18.3.

WORKMANSHIP: Set screws shall be free from burrs, seams, laps, loose scale, irregular surfaces, and any defects affecting their serviceability.

Supersedes Issue: C-070	Dated: JUN 89	Page: 3 of 6
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HEXAGON SOCKET SET SCREWS (SUPERSEDED)



Nominal Size or Basic Screw Diameter		J			T
		Hexagon Socket Size			Min. Key Engagement to Develop Functional Capability of Key
		Nom.	Max.	Min.	Hex Socket Min.
4	.112	.050	.0510	.0500	.070
6	.138	1/16	.0635	.0625	.080
8	.164	5/64	.0791	.0781	.090
10	.190	3/32	.0952	.0937	.100
1/4	.250	1/8	.1270	.1250	.125
5/16	.312	5/32	.1587	.1562	.156
3/8	.375	3/16	.1900	.1875	.188
7/16	.438	7/32	.2217	.2187	.219
1/2	.500	1/4	.2530	.2500	.250
5/8	.625	5/16	.3160	.3125	.312
3/4	.750	3/8	.3790	.3750	.375
7/8	.875	1/2	.5050	.5000	.500
1	1.000	9/16	.5680	.5625	.562



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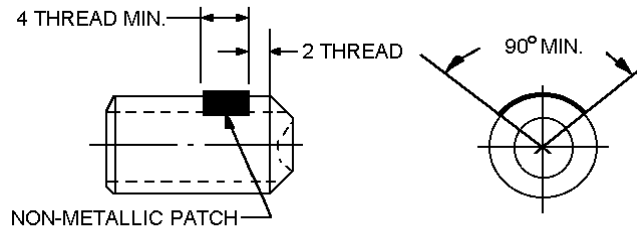
HEXAGON SOCKET SET SCREWS (SUPERSEDED)

DESIGN CONSIDERATION: When Half Dog Point Set Screws are used in conjunction with a drilled hole in shaft to prevent side play or where permanent location of one part in relation to another is desired, the following point dimensions are to be used to determine matching drilled hole. Locking feature may be required to hold screws in place.

Nominal Size or Basic Screw Diameter		P		Q	
		Half Dog Point			
		Diameter		Length	
		Max.	Min.	Max.	Min.
4	.112	.075	.070	.030	.026
6	.138	.092	.087	.038	.032
8	.164	.109	.103	.043	.037
10	.190	.127	.120	.049	.041
1/4	.250	.156	.149	.067	.059
5/16	.312	.203	.195	.082	.074
3/8	.375	.250	.241	.099	.089
7/16	.438	.297	.287	.114	.104
1/2	.500	.344	.334	.130	.120
5/8	.625	.469	.456	.164	.148
3/4	.750	.562	.549	.196	.180
7/8	.875	.656	.642	.227	.211
1	1.000	.750	.734	.260	.240

Supersedes Issue: C-070	Dated: JUN 89	Page: 5 of 6
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**HEXAGON SOCKET SET SCREWS
(SUPERSEDED)**

PREVAILING TORQUE FEATURE: When prevailing-torque feature is specified, the location and size of the non-metallic plastic patch must comply with the illustration shown above. Screws shall assemble a minimum of one full turn by hand into any mating internally threaded component that is accepted by a properly selected GO thread plug gage.

The prevailing-torque feature shall be free from visible porosity, voids and cracks, and shall be uniform in color without streaks, dark areas, or other indicators of contamination or degradation. It shall be firmly attached to the screw and shall not loosen under normal handling. It shall be chemically inert and must withstand temperatures of 120°C (250°F).

PREVAILING-TORQUE PERFORMANCE REQUIREMENTS: Volume of non-metallic patch material must be sufficient to meet prevailing-torque requirements when tested in accordance with IFI-124 standard.