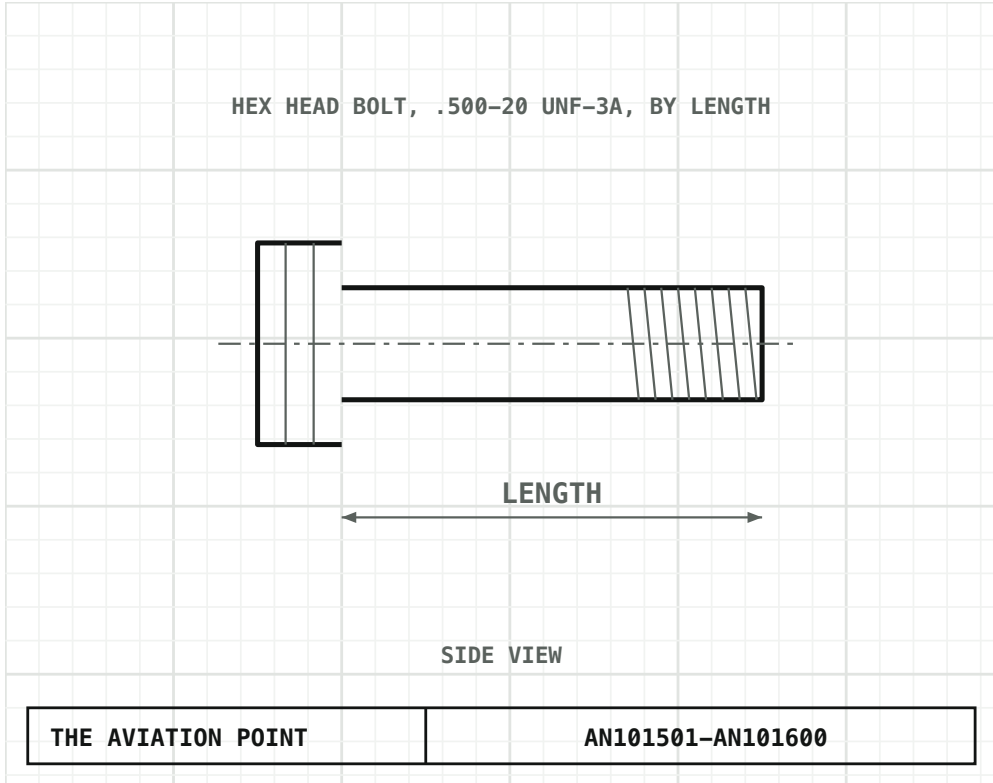
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AN101501-AN101600 — hex head bolt, .500-20 UNF-3A, by length

AN101501-AN101600: .500-20 UNF-3A hex head bolt, one part number per length, AN101506 to AN101553.



Engineering drawing · dimensions in inches

Specification

Item	Value
Type	Hexagon head bolt
Material	Steel AMS6322, hardness Rockwell C26-32; manufacturing specification AMS7452
Finish	Cadmium plate AMS2400
Status	Check the current issue before design use. Inactive for new design after 3 Mar 1969; no superseding standard.

Dimensions by size

Dimension, in	.500-20 UNF-3A
Thread	.500-20 UNF-3A
A max — A dia (shank), max	.499
A min — A dia (shank), min	.495
B max — B, max (across flats)	.752
B min — B, min (across flats)	.741
C — C, min (across corners)	.847
D — D (head height)	.281
W — W dia (bearing face, head chamfer 30°)	.750
E — E × 45°, approx (end chamfer)	.047

Dimensions in inches, from the drawing of the standard. L and K are the standard's letters; A, B, C, D, E and W are assigned on this datasheet.

Part numbers

.500-20 UNF-3A 48 part numbers

Part no.	L, in	K to full thread, in
AN101506	.938	—
AN101507	1.000	.125
AN101508	1.062	.188
AN101509	1.125	.250
AN101510	1.188	.312
AN101511	1.250	.375
AN101512	1.312	.438
AN101513	1.375	.500
AN101514	1.438	.562
AN101515	1.500	.625
AN101516	1.562	.688
AN101517	1.625	.750
AN101518	1.688	.812
AN101519	1.750	.875
AN101520	1.875	1.000
AN101521	2.000	1.125
AN101522	2.125	1.250
AN101523	2.250	1.375
AN101524	2.375	1.500
AN101525	2.500	1.625
AN101526	2.625	1.750
AN101527	2.750	1.875
AN101528	2.875	2.000
AN101529	3.000	2.125
AN101530	3.125	2.250
AN101531	3.250	2.375
AN101532	3.375	2.500
AN101533	3.500	2.625
AN101534	3.625	2.750
AN101535	3.750	2.875
AN101536	3.875	3.000
AN101537	4.000	3.125
AN101538	4.125	3.250
AN101539	4.250	3.375
AN101540	4.375	3.500
AN101541	4.500	3.625
AN101542	4.625	3.750
AN101543	4.750	3.875
AN101544	4.875	4.000
AN101545	5.000	4.125
AN101546	5.125	4.250
AN101547	5.250	4.375
AN101548	5.375	4.500
AN101549	5.500	4.625
AN101550	5.625	4.750
AN101551	5.750	4.875
AN101552	5.875	5.000
AN101553	6.000	5.125

How to read the part number

Part	Meaning
Format	AN101<dash>
Example	AN101553 — Hex head bolt, .500-20 UNF-3A, L 6.000, K 5.125

Reference data. The aircraft manufacturer's documentation (SRM / IPC) takes precedence.

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Notes

- Each part number is one length L; K is the length to full thread (+.000 –.060). Where K shows a dash, the thread runs to the head with two imperfect threads max. Do not use unassigned part numbers.
- Thread pitch diameter concentric with the shank within .006 FIR; shank concentric with the washer face diameter and hexagon within .023 FIR.
- Bearing face square with the shank within .003 FIR; head chamfer 30° to the bearing face diameter (opposite side optional); fillet under the head R .005 to .015; max 2 imperfect threads.
- Thread per MIL-S-7742. Material identification per AMS2800, raised or depressed .010 max.
- All parts undergo magnetic inspection per AMS2640. Break sharp edges .003 to .015 unless otherwise specified. Unless otherwise specified: linear ±.010, angular ±2°.
- Approved data governs. Use the bolt the SRM, drawing or IPC calls for.

SOURCES · AN101501 thru AN101600 Rev. 3, 30 Jun 1986 — Bolt — Hex Head, .500-20

SCAN · OPEN THIS DATA SHEET
theaviationpoint.com/parts/structural-bolts/an101501-an101600/

Reference data. The aircraft manufacturer's documentation (SRM / IPC) takes precedence.