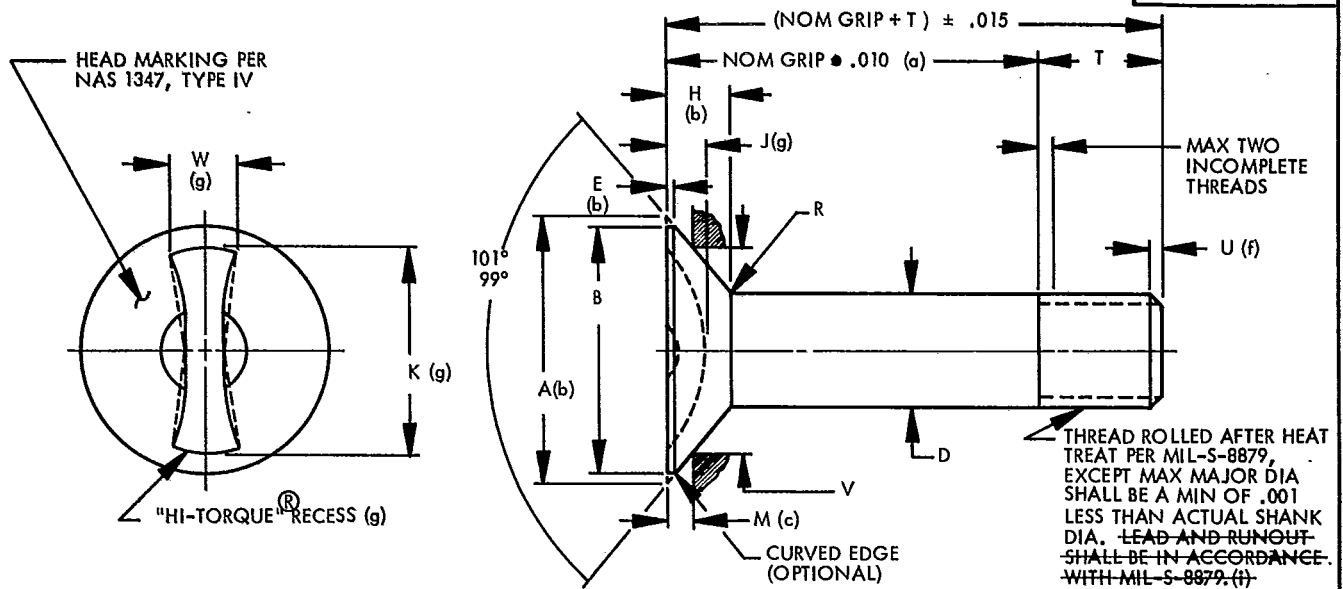


NATIONAL AEROSPACE STANDARD

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC., 1725 DE SALES STREET, N. W. WASHINGTON, D. C. 20036

FED SUP CLASS
5306

BASIC PART NO.	THREAD UNJF-3A	A DIA MAX (b)	B DIA MIN	D DIA		E MAX (b)	H REF (b)	M GAGE PROT (c)	R RAD	T	U REF (f)	V GAGE DIA	Y TIR (d)	Z TIR (e)	HI-TORQUE RECESS (g)				
				Before Plating	After Plating										RECESS NO.	J	K REF	W REF	Torque In. Lbs. Min
NAS1503	.1900-32	.3813	.339	.1887 .1881	.1895 .1885	.015	.083	.0285 .0255	.035 .015	.276	.050	.3147 .3145	.005	.0040	3	.045 .042	.305	.110	50
NAS1504	.2500-28	.5066	.464	.2487 .2481	.2495 .2485	.015	.111	.0338 .0309	.035 .015	.316	.050	.4245 .4243	.006	.0030	4	.054 .051	.422	.134	125
NAS1505	.3125-24	.6335	.578	.3112 .3106	.3120 .3110	.015	.140	.0409 .0370	.045 .025	.375	.060	.5389 .5387	.007	.0030	5	.064 .061	.490	.160	250
NAS1506	.3750-24	.7604	.717	.3737 .3731	.3745 .3735	.015	.167	.0459 .0422	.045 .025	.391	.060	.6532 .6530	.008	.0025	6	.088 .084	.639	.198	430
NAS1507	.4375-20	.8884	.826	.4362 .4356	.4370 .4360	.022	.195	.0470 .0425	.055 .035	.453	.080	.7784 .7782	.009	.0025	7	.100 .096	.715	.224	925
NAS1508	.5002-20	1.0139	.951	.4981 .4981	.4995 .4985	.022	.222	.0529 .0482	.055 .035	.453	.080	.8902 .8900	.010	.0020	8	.105 .101	.766	.256	1210
NAS1509	.5625-18	1.1408	1.071	.5607 .5601	.5615 .5605	.025	.250	.0590 .0541	.055 .035	.511	.090	1.0028 1.0026	.010	.0020	9	.118 .114	.877	.300	1760
NAS1510	.6250-18	1.2723	1.201	.6232 .6226	.6240 .6230	.025	.280	.0683 .0631	.055 .035	.543	.090	1.1124 1.1122	.010	.0020	10	.141 .137	1.020	.344	2460

NOTE: FOR .0156 OVERSIZE BOLTS AND .0312 OVERSIZE BOLTS USE NAS 1243-NAS 1250 AND NAS 1253-NAS 1260 RESPECTIVELY.

INACTIVE FOR DESIGN AFTER DECEMBER 31, 1976. SEE NAS1790 FOR DESCRIPTION OF STATUS NOTE, SEE NAS 380

CUSTODIAN: NATIONAL AEROSPACE STANDARDS COMMITTEE

PROCUREMENT SPECIFICATION
NOTED

TITLE
BOLT, 100° FLUSH HEAD
HI-TORQUE RECESS, SHORT THREAD
ALLOY STEEL, 160,000 PSI

CLASSIFICATION
STANDARD PART

NAS 1503 THRU 1510
SHEET 1 of 3

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APPROVAL DATE JAN 1957
REVISION (3) 30 Nov. 1970 (4) 30 Sept. 1971 (5) 30 March 1977 (6) 20 AUG. 1981

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BASIC PART NO.	DOUBLE SHEAR STRENGTH LBS. MIN	TENSILE STRENGTH LBS. MIN
NAS1503	5,380	3,180
NAS1504	9,300	5,790
NAS1505	14,600	9,260
NAS1506	21,000	14,000
NAS1507	28,600	19,000
⑤ NAS1508	37,300	25,600
NAS1509	47,200	32,400
NAS1510	58,300	40,900

- (a) GRIP LENGTH IS FROM TOP OF BOLT HEAD TO END OF FULL CYLINDRICAL PORTION OF SHANK.
- (b) A, E, AND H ARE INCLUDED FOR ENGINEERING REFERENCE PURPOSES ONLY AND ARE NOT TO BE USED FOR INSPECTION. VALUES A, E, AND H ARE CALCULATED LIMITS RESULTING FROM TOLERANCE ON B, D, M, V AND HEAD ANGLE.
- (c) DIMENSIONS FOR M GAGE PROTRUSION SHALL BE INSPECTED PER NAS 527.
- (d) HEAD EDGE OUT OF ROUNDNESS SHALL NOT EXCEED "Y" TIR.
- (e) SHANK SHALL BE STRAIGHT WITHIN "Z" VALUES TIR PER INCH OF LENGTH.
- (f) POINT SHALL BE FLAT AND CHAMFERED. CHAMFER PLUS INCOMPLETE THREAD SHALL NOT EXCEED "U".
- (g) HI-TORQUE[®] RECESS PER MS 33750. BOLT RECESS SHALL BE TORQUE TESTED WITH APPLICABLE MS 33750 DRIVER WITH AXIAL END PRESSURE NOT EXCEEDING 15 POUNDS. BOLTS ARE REJECTABLE IF MINIMUM TORQUE VALUES LISTED ABOVE CAUSE FRACTURE OF BOLT OR DISTORTION WHICH RESULTS IN RAISE OF METAL AT EDGE OF SLOT EXCEEDING .005 ABOVE SURROUNDING AREA. SAMPLING SHALL BE PER MIL-STD-105, 4% AQL LEVEL S-1.
- ~~(h) BOLTS WITHOUT PILOT DEPRESSION IN RECESS MAY BE SUPPLIED UNTIL 30 SEPT. 1971.~~
- ~~(i) FASTENER SUPPLIERS MAY SUPPLY FASTENERS WITH MIL-S-7742 THREADS UNTIL 30 SEPT. 1971. FASTENERS WITH MIL-S-7742 THREADS MAY BE USED UNTIL STOCK IS DEPLETED.~~

MATERIAL: ALLOY STEEL PER PROCUREMENT SPEC, PLUS 4130 ALLOY STEEL PER MIL-S-6758 FOR NAS 1506 AND SMALLER.

HEAT TREAT: 160,000 - 180,000 PSI TENSILE STRENGTH PER MIL-H-6875.

FINISH CODE: ~~3 NO LETTER DESIGNATES CADMIUM PLATE PER QQ-P-416, TYPE II, CLASS 2.~~
~~LETTER "T" DESIGNATES CADMIUM PLATE PER QQ-P-416, TYPE II, CLASS 2.~~
~~LETTER "W" DESIGNATES CADMIUM PLATE PER QQ-P-416, TYPE I, CLASS 3.~~

CODE: DASH NUMBER DESIGNATES GRIP LENGTH IN .0625 INCH INCREMENTS (CONVERTED TO THREE DECIMAL PLACES PER ANSI Y14.5). ~~INTERMEDIATE AND LONGER GRIP LENGTHS THAN THOSE LISTED ON PAGE 3 MAY BE ORDERED BY USE OF SIGNIFICANT DASH NUMBERS.~~

EXAMPLE OF PART NUMBER:
 NAS1504-5 = .2500-28 STEEL BOLT, .312 GRIP LENGTH, WITH TYPE II, CLASS 2 CADMIUM PLATE.
~~NAS1504-5T = .2500-28 STEEL BOLT, .312 GRIP LENGTH, WITH TYPE II, CLASS 2 CADMIUM PLATE.~~
~~NAS1504-5W = .2500-28 STEEL BOLT, .312 GRIP LENGTH, WITH TYPE I, CLASS 3 CADMIUM PLATE.~~

- NOTES:
1. CONCENTRICITY: CONICAL SURFACE TO HEAD TO "D" DIA WITHIN .003 TIR.
 "D" DIA TO THREAD PITCH DIA WITHIN .0045 TIR FOR NAS 1503 THRU NAS 1505 AND WITHIN .006 TIR FOR NAS 1506 AND LARGER.
 2. SURFACE TEXTURE PER ANSI B46.1 CONICAL SURFACE OF HEAD, HEAD TO SHANK FILLET RADIUS, SHANK AND ALL THREAD ELEMENTS 32 RHR MAX. ALL OTHER SURFACES 125 RHR MAX.
 - ③ 3. PARTS WITH TYPE I, CLASS 3 AND TYPE II, CLASS 3 CADMIUM PLATE MAY BE FURNISHED FROM SUPPLIER'S STOCK UNTIL 1 JULY 1978.
 4. BREAK ALL SHARP EDGES AND REMOVE ALL BURRS.
 5. DIMENSIONS IN INCHES AND TO BE MET AFTER PLATING, ~~EXCEPT AS SHOWN ON SHEET 1.~~

PROCUREMENT SPECIFICATION: PER NAS 498 EXCEPT AS NOTED.

⑤ INACTIVE FOR DESIGN AFTER DECEMBER 31, 1976. SEE NAS1790

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NAS 1503 THRU 1510
 Sheet 2 of 3

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20 AUG. 1981

30 March 1977

30 Sept. 1971

30 Sept. 1970

30 Sept. 1970

30 Sept. 1970

30 Sept. 1970

30 Sept. 1970

30 Sept. 1970

30 Sept. 1970

30 Sept. 1970