

FED. SUPPLY CLASS

5306

AEROSPACE INDUSTRIES ASSOCIATION OF AMERICA, INC.
1000 WILSON BLVD.
ARLINGTON, VA 22209

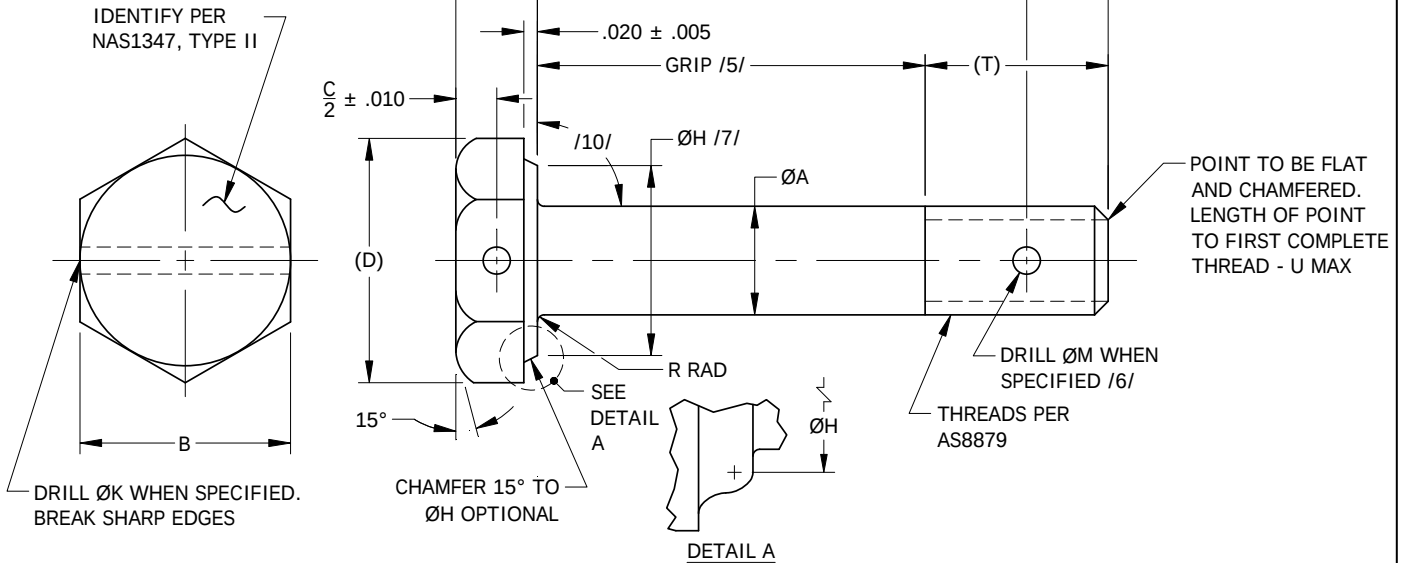


TABLE I - DIMENSIONS AND STRENGTH VALUES ⁹

BASIC PART NUMBER	THREAD UNJF-3A	ØA		B		C ±.016	(D)	ØH MIN /7/	J NOM	ØK +.010 -.000	M +.010 -.000 /6/	R RAD		(T)	U MAX	X /8/	Y /8/	Z /9/	TENSILE STRENGTH LBF MIN /13/
		MAX	MIN	MAX	MIN							MAX	MIN						
NAS1003	.1900-32	.1895	.1870	.376	.367	.125	.43	.335	.266	.046	.070	.020	.010	.481	.05	.005	.0045	.0040	2,800
NAS1004	.2500-28	.2495	.2470	.439	.430	.156	.51	.398	.312	.046	.076	.020	.010	.544	.05	.006	.0045	.0030	5,100
NAS1005	.3125-24	.3120	.3095	.501	.492	.188	.58	.460	.359	.070	.106	.020	.010	.632	.06	.008	.0045	.0030	8,120
NAS1006	.3750-24	.3745	.3720	.564	.554	.219	.65	.523	.438	.070	.106	.025	.015	.663	.06	.009	.0060	.0025	12,300
NAS1007	.4375-20	.4370	.4345	.689	.679	.250	.79	.648	.484	.070	.106	.025	.015	.745	.08	.010	.0060	.0025	16,600
NAS1008	.5000-20	.4995	.4970	.751	.741	.281	.87	.710	.609	.070	.106	.030	.020	.842	.08	.011	.0060	.0020	22,400
NAS1009	.5625-18	.5615	.5585	.876	.865	.312	1.01	.835	.656	.070	.141	.035	.020	.947	.09	.012	.0060	.0020	28,400
NAS1010	.6250-18	.6240	.6210	.939	.928	.344	1.09	.898	.734	.070	.141	.040	.025	1.042	.09	.015	.0060	.0020	35,800
NAS1012	.7500-16	.7490	.7460	1.064	1.053	.406	1.23	1.023	.875	.070	.141	.045	.030	1.189	.10	.018	.0090	.0020	52,200
NAS1014	.8750-14	.8740	.8710	1.252	1.239	.469	1.44	1.210	.984	.070	.141	.050	.035	1.356	.11	.020	.0090	.0020	71,300
NAS1016	1.0000-12	.9990	.9960	1.440	1.427	.531	1.66	1.398	1.094	.070	.141	.060	.045	1.481	.13	.022	.0090	.0020	92,800
/15/ NAS1016A	1.0000-14*																		
NAS1018	1.1250-12	1.1240	1.1200	1.627	1.614	.594	1.88	1.585	1.188	.070	.141	.070	.055	1.658	.13	.025	.0090	.0020	120,000
NAS1020	1.2500-12	1.2490	1.2450	1.815	1.801	.656	2.10	1.772	1.375	.070	.141	.075	.060	1.846	.13	.028	.0120	.0020	150,000

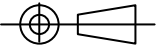
* UNS-3A

MATERIAL: CRES, A286 (UNS S66286) PER AMS5731, AMS5732, AMS5737 OR AMS5853, ~~AMS5735 OR AMS5737 OR DISCALOY PER AMS5733, EXCEPT ULTIMATE TENSILE STRENGTH 140,000 PSI MINIMUM AT ROOM TEMPERATURE, FABRICATED TO AMS7478: /14/~~

FINISH: CLEAN AND PASSIVATE IN ACCORDANCE WITH AMS2700, METHOD 1, CLASS 4.

CODE: BASIC PART NUMBER DESIGNATES NOMINAL DIAMETER.
DASH NUMBER DESIGNATES GRIP AND LENGTH (SEE SHEET 3).
ADD "A" TO DASH NUMBER FOR UNDRILLED BOLT.

THIRD
ANGLE
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CUSTODIAN
NATIONAL AEROSPACE STANDARDS COMMITTEE

REVISION
9

PROCUREMENT
SPECIFICATION

TITLE

CLASSIFICATION
PART STANDARD

NOTED

**BOLT, MACHINE,
HEXAGON HEAD, A286 CRES**

NAS1003 THRU NAS1020
SHEET 1 OF 3



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ADD "H" TO DASH NUMBER FOR DRILLED HEAD ONLY.
NO CODE LETTER DESIGNATES DRILLED SHANK ONLY.

EXAMPLE OF PART NUMBER:

NAS1003-8 = .1900 DIAMETER BOLT, .500 GRIP, DRILLED SHANK ONLY.

NAS1003-8A = .1900 DIAMETER BOLT, .500 GRIP, UNDRILLED.

NAS1003-8H = .1900 DIAMETER BOLT, .500 GRIP, DRILLED HEAD ONLY.

- NOTES:
- (1) REFERENCE DIMENSIONS ARE FOR DESIGN PURPOSES ONLY AND NOT AN INSPECTION REQUIREMENT.
 - (2) MAGNETIC PERMEABILITY SHALL BE LESS THAN 2.0 (AIR= 1.0) FOR A FIELD STRENGTH H = 200 OERSTEDS USING A MAGNETIC PERMEABILITY INDICATOR PER ASTM A342/A342M, TEST METHOD 3.
 - (3) REMOVE ALL BURRS AND SHARP EDGES.
 - (4) THESE BOLTS ARE INTENDED FOR USE AT TEMPERATURES UP TO 1200°F.
 - /5/ GRIP LENGTH: FROM UNDERSIDE OF HEAD TO END OF FULL CYLINDRICAL PORTION OF SHANK.
 - /6/ COTTER PIN HOLE CENTERLINE: WITHIN .010 AND NORMAL WITHIN 2° OF BOLT CENTERLINE.
 - /7/ "ØH" MAXIMUM NOT TO EXCEED "B"; MINIMUM DIA AT TOP OF HEAD NOT LESS THAN "ØH."
 - /8/ CONCENTRICITY: "ØH" AND "ØA" WITHIN "X" VALUES FIM, "ØA" AND THREAD PITCH DIAMETER WITHIN "Y" VALUES FIM.
 - /9/ SHANK STRAIGHTNESS: WITHIN "Z" VALUES FIM PER INCH OF LENGTH.
 - /10/ BEARING SURFACE SQUARENESS: WITHIN .003 FIM WITH SHANK.
 - 9 (11) DIMENSIONS IN INCHES AND APPLY AFTER FINISH UNLESS OTHERWISE SPECIFIED. TOLERANCES UNLESS OTHERWISE SPECIFIED: ANGLES $\pm 5^\circ$.
 - ~~(12) PARTS MANUFACTURED TO AMS7478 MAY BE FURNISHED FROM SUPPLIERS STOCK UNTIL DECEMBER 31, 1992.~~
 - /13/ ULTIMATE TENSILE STRENGTH IS BASED ON A NON-DRILLED FED-STD-H28/2 THREAD AREA AND 140,000 PSI. FOR BOLTS WITH CROSS-DRILLED THREAD, A REDUCED SECTION SPECIMEN MAY BE MACHINED FROM THE PART AND TESTED TO VERIFY THAT BASIC MATERIAL PROPERTIES MEET OR EXCEED 140,000 PSI MINIMUM.
 - /14/ DISCALOY INACTIVE FOR DESIGN AFTER JULY 1, 1979.
 - /15/ NAS1016A INACTIVE FOR DESIGN AFTER JULY 1, 1979.
 - /16/ DASH NUMBER INDICATES GRIP LENGTH IN .0625 INCREMENTS. INTERMEDIATE OR LONGER LENGTHS MAY BE ORDERED BY USE OF PROPER DASH NUMBER.
 - (17) FOR DESCRIPTION OF STATUS NOTES, SEE NAS380.
 - (18) THIS STANDARD TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN.
 - 9 (19) UNLESS OTHERWISE SPECIFIED HEREIN, REFERENCED DOCUMENTS SHALL BE THE ISSUE IN EFFECT ON DATE OF MANUFACTURE. HOWEVER, EXISTING MATERIAL INVENTORY CERTIFIED TO A PREVIOUS REVISION OF THE APPLICABLE MATERIAL SPECIFICATION(S) IS ACCEPTABLE FOR USE UNTIL DEPLETION.
 - (20) UNLESS OTHERWISE SPECIFIED, PART INVENTORY MANUFACTURED TO PREVIOUS REVISIONS OF THE APPLICABLE DRAWING OR SPECIFICATION MAY BE PROCURED AND USED UNTIL STOCK IS DEPLETED.
 - 9 (21) DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1982.

PROCUREMENT SPECIFICATION:

AS7477 EXCEPT AS NOTED. ULTIMATE TENSILE STRENGTH (LBF MIN) LOAD VALUES AS TABULATED HEREIN.

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REVISION

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NAS1003 THRU NAS1020
SHEET 2



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