

FED. SUPPLY CLASS

5306

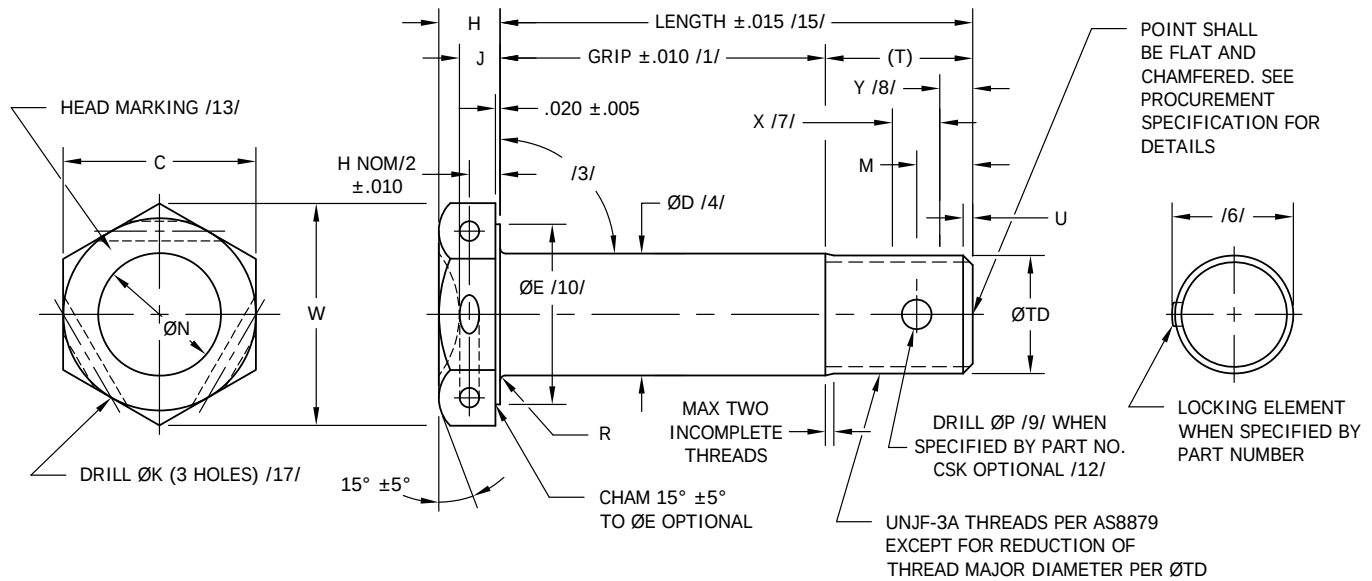


FIGURE 1 – BOLT CONFIGURATION

TABLE I – DIMENSIONS (CONTINUED ON SHEET 2)

BASIC NUMBER	THREAD UNJF-3A	C		ØD				ØE MIN /10/	H +.015 -.000	J +.015 -.000	ØK /17/	M ±.010
				UNPLATED		PLATED OR COATED						
		MAX	MIN	MAX	MIN	MAX	MIN					
NAS6303	.1900-32	.376	.367	.1895	.1890	.1895	.1885	.335	.110	.073	.056	.164
NAS6304	.2500-28	.439	.429	.2495	.2490	.2495	.2485	.398	.125	.083	.046	.170
NAS6305	.3125-24	.502	.492	.3120	.3115	.3120	.3110	.460	.156	.104	.080 .070	.182
NAS6306	.3750-24	.564	.554	.3745	.3740	.3745	.3735	.523	.188	.125		.183
NAS6307	.4375-20	.690	.678	.4370	.4365	.4370	.4360	.648	.219	.146		.199
NAS6308	.5000-20	.752	.741	.4995	.4990	.4995	.4985	.710	.250	.167		.198
NAS6309	.5625-18	.877	.865	.5615	.5610	.5615	.5605	.835	.281	.188		.207
NAS6310	.6250-18	.940	.928	.6240	.6235	.6240	.6230	.898	.312	.208		.207
NAS6312	.7500-16	1.065	1.052	.7490	.7485	.7490	.7480	1.023	.375	.250		.222
NAS6314	.8750-14	1.252	1.239	.8740	.8735	.8740	.8730	1.210	.438	.292		.241
NAS6316	1.0000-12	1.440	1.427	.9990	.9985	.9990	.9980	1.398	.500	.333		.264
NAS6318	1.1250-12	1.627	1.614	1.1240	1.1230	1.1240	1.1225	1.585	.562	.375		.295
NAS6320	1.2500-12	1.814	1.801	1.2490	1.2480	1.2490	1.2475	1.772	.625	.417	.295	

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THIS DRAWING SUPERSEDES ALL ANTECEDENT STANDARD DRAWINGS FOR THE SAME PRODUCT AND SHALL BECOME EFFECTIVE NO LATER THAN SIX MONTHS FROM THE LAST REVISION DATE.

REVISION DATE: MARCH 31, 2016

ISSUE DATE: FEBRUARY 1969

THIRD ANGLE PROJECTION	CUSTODIAN NATIONAL AEROSPACE STANDARDS COMMITTEE	REVISION 10
PROCUREMENT SPECIFICATION NOTED	TITLE BOLT, TENSION, HEX HEAD, CLOSE TOLERANCE, A286 CRES, SHORT THREAD, REDUCED MAJOR THREAD DIA., SELF-LOCKING AND NONLOCKING, 160 KSI Ftu	CLASSIFICATION PART STANDARD NAS6303 THRU NAS6320 SHEET 1 OF 8

TABLE I – DIMENSIONS (CONTINUED)

BASIC NUMBER	ØN ±.01	ØP ±.005 /9/	R RAD		(T) /2/	ØTD		U MAX	W MIN	X /7/	Y /8/	INSPECTION DATA		
			MAX	MIN		MAX	MIN					AA /4/	BB /5/	CC /4/
NAS6303	.19	.075	.020	.010	.323	.1840	.1810	.039	.410	.156	.094	.0045	.0040	.005
NAS6304	.25	.081	.020	.010	.370	.2440	.2410	.045	.480	.179	.107	.0045	.0030	.006
NAS6305	.31	.081	.020	.010	.438	.3060	.3020	.052	.552	.208	.125	.0045	.0030	.008
NAS6306	.38	.111	.025	.015	.454	.3680	.3640	.052	.623	.208	.125	.0045	.0025	.009
NAS6307	.44	.111	.025	.015	.528	.4310	.4260	.062	.764	.250	.150	.0060	.0025	.010
NAS6308	.50	.111	.030	.020	.528	.4930	.4880	.062	.836	.250	.150	.0060	.0020	.011
NAS6309	.56	.146	.035	.020	.594	.5550	.5500	.068	.978	.278	.167	.0060	.0020	.012
NAS6310	.62	.146	.040	.025	.626	.6180	.6120	.068	1.050	.278	.167	.0060	.0020	.015
NAS6312	.75	.146	.045	.030	.666	.7430	.7370	.078	1.191	.312	.188	.0060	.0020	.018
NAS6314	.88	.146	.050	.035	.759	.8680	.8610	.089	1.405	.357	.214	.0090	.0020	.020
NAS6316	1.00	.146	.060	.045	.895	.9930	.9860	.104	1.619	.417	.250	.0090	.0020	.022
NAS6318	1.12	.146	.070	.055	.989	1.1180	1.1110	.104	1.832	.417	.250	.0090	.0020	.025
NAS6320	1.25	.146	.075	.060	1.083	1.2430	1.2360	.104	2.046	.417	.250	.0090	.0020	.028

MATERIAL: CRES - A286 (UNS S66286) CONFORMING TO THE CHEMISTRY OF AMS5731, AMS5732, AMS5737 OR AMS5853.

LOCKING ELEMENT – NYLON OR EQUIVALENT PER MIL-DTL-18240 AND QPL-18240.

HEAT TREAT: DEVELOP BASIC MATERIAL PROPERTIES AS FOLLOWS, WITH CONTROLS PER AMS-H-6875 OR AMS2759: /19/
160 – 190 KSI Ft_u

FINISH: UNPLATED – PASSIVATED PER AMS2700, METHOD 1, TYPE 2 OR TYPE 8, CLASS 14,
PASSIVATED PER AMS2700 METHOD 1, TYPE 8, CLASS 4 - WITHOUT POST TREATMENT OR
PASSIVATED PER AMS2700 METHOD 2 - WITHOUT POST TREATMENT.
CADMIUM PLATED - CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2. IDENTIFY WITH GREEN DYE
OR PAINT ON THE THREAD END. MAXIMUM COVERAGE MAY INCLUDE THE CHAMFER PLUS ONE
INCOMPLETE THREAD.
CHROMIUM PLATED – CHROMIUM PLATE PER AMS-QQ-C-320, CLASS 2 ON SHANK ONLY. ALL OTHER
SURFACES CADMIUM PLATED. NO CHROMIUM WITHIN .020 OF LINE OF TANGENCY OF HEAD TO
SHANK FILLET. CHROMIUM IN THREAD RUNOUT PERMITTED. CHROMIUM PLATED BOLTS NOT
AVAILABLE WITH GRIP DASH NUMBER 1 OR NUMBER 2.
ALUMINUM COATED – ALUMINUM COAT PER NAS4006.

CODE: NO FINISH CODE AFTER BASIC NUMBER FOR CADMIUM PLATED BOLTS.
ADD “A” AFTER BASIC NUMBER FOR ALUMINUM COATED BOLT. MAY BE USED WITH “D”, “H”, “L”, OR
“P” CODE.
ADD “B” AFTER BASIC PART NUMBER FOR BOLTS, PASSIVATED IN ACCORDANCE WITH AMS2700
METHOD 2 - WITHOUT POST TREATMENT. MAY BE USED WITH “D”, “H”, “L”, OR “P” CODE.
ADD “C” AFTER BASIC NUMBER FOR CHROMIUM PLATED BOLTS.
ADD “L” AFTER BASIC NUMBER FOR SELF-LOCKING BOLT WITH LOCKING ELEMENT TYPE OPTIONAL;
SEE PROCUREMENT SPEC BELOW. DO NOT USE “L” WITH “D” OR “P” CODE.
ADD “M” AFTER BASIC PART NUMBER FOR BOLTS, PASSIVATED IN ACCORDANCE WITH
AMS2700 METHOD 1, TYPE 8, CLASS 4 - WITHOUT POST TREATMENT. MAY BE USED WITH
“D”, “H”, “L”, OR “P” CODE.
ADD “P” AFTER BASIC NUMBER FOR SELF-LOCKING BOLT WITH PATCH TYPE LOCKING ELEMENT ONLY;
SEE PROCUREMENT SPEC BELOW. DO NOT USE “P” WITH “D” OR “L” CODE.
ADD “U” AFTER BASIC NUMBER FOR BOLTS, PASSIVATED PER AMS2700, METHOD 1, TYPE 2 OR TYPE
8, CLASS 4.

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NAS6303 THRU NAS6320
SHEET 2



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GRIP DASH NUMBER INDICATES GRIP IN .0625 INCREMENTS (CONVERTED TO THREE DECIMAL PLACES PER ANSI Y14.5-1982). SEE TABLE II FOR TABULATIONS OF GRIP AND LENGTH DIMENSIONS.

/15/

ADD "D" AFTER GRIP DASH NUMBER FOR DRILLED SHANK BOLTS. DO NOT USE WITH "L" OR "P" CODE.

/12/

ADD "H" AFTER GRIP DASH NUMBER FOR BOLT WITH DRILLED HEAD.

CODE LETTER "X" AND "Y" FOLLOWING THE GRIP DASH NUMBER INDICATES REPLACEMENT OVERSIZE REPAIR BOLT. (SEE LAST SHEET)

IF MORE THAN ONE CODE LETTER IS USED IN SEQUENCE, ARRANGE THE LETTERS ALPHABETICALLY.

EXAMPLE OF PART NUMBER: (SEE LAST SHEET FOR OVERSIZE BOLTS.)

NAS6304-10	=	BOLT, .2500-28 THREAD, .625 GRIP, UNDRILLED, NONLOCKING, CADMIUM PLATED.
NAS6304U10	=	BOLT, .2500-28 THREAD, .625 GRIP, UNDRILLED, NONLOCKING, PASSIVATED PER AMS2700, METHOD 1, TYPE 2 OR TYPE 8, CLASS 4.
NAS6304B10	=	BOLT, .2500-28 THREAD, .625 GRIP, UNDRILLED, NONLOCKING, PASSIVATED PER AMS2700, METHOD 2 - WITHOUT POST TREATMENT.
NAS6304-10D	=	BOLT, .2500-28 THREAD, .625 GRIP, DRILLED SHANK, NONLOCKING, CADMIUM PLATED.
NAS6304-10DH	=	BOLT, .2500-28 THREAD, .625 GRIP, DRILLED SHANK, DRILLED HEAD, NONLOCKING, CADMIUM PLATED.
NAS6304C10H	=	BOLT, .2500-28 THREAD, .625 GRIP, DRILLED HEAD, UNDRILLED SHANK, NONLOCKING, CHROMIUM PLATED.
NAS6304L10	=	BOLT, .2500-28 THREAD, .625 GRIP, UNDRILLED, SELF-LOCKING (LOCKING TYPE OPTIONAL), CADMIUM PLATED.
NAS6304P10	=	BOLT, .2500-28 THREAD, .625 GRIP, UNDRILLED, SELF-LOCKING (PATCH TYPE), CADMIUM PLATED.
NAS6304A10	=	BOLT, .2500-28 THREAD, .625 GRIP, UNDRILLED, NONLOCKING, ALUMINUM COATED.
NAS6304LU10	=	BOLT, .2500-28 THREAD, .625 GRIP, UNDRILLED, SELF-LOCKING, (LOCKING TYPE OPTIONAL), PASSIVATED PER AMS2700, METHOD 1, TYPE 2 OR TYPE 8, CLASS 4.
NAS6304PU10	=	BOLT, .2500-28 THREAD, .625 GRIP, UNDRILLED, SELF-LOCKING (PATCH TYPE), PASSIVATED PER AMS2700, METHOD 1, TYPE 2 OR TYPE 8, CLASS 4.
NAS6304MP10	=	BOLT, .2500-28 THREAD, .625 GRIP, UNDRILLED, SELF-LOCKING (PATCH TYPE), PASSIVATED PER AMS2700, METHOD 1, TYPE 8, CLASS 4 - WITHOUT POST TREATMENT.

NOTES:

- /1/ GRIP LENGTH: FROM UNDER SIDE OF HEAD TO END OF FULL CYLINDRICAL PORTION OF SHANK.
- /2/ REFERENCE DIMENSIONS ARE FOR DESIGN PURPOSES ONLY AND ARE NOT AN INSPECTION REQUIREMENT.
- /3/ BEARING SURFACE SQUARENESS: WITHIN .003 FIM OF "ØD".
- /4/ CONCENTRICITY: "ØD" AND MAJOR THREAD DIA WITHIN "AA" VALUES FIM. "ØD" AND "ØE" WITHIN "CC" VALUES FIM.
- /5/ SHANK STRAIGHTNESS: WITHIN "BB" VALUES FIM PER INCH OF LENGTH.
- /6/ PROTRUSION OF LOCKING ELEMENT SHALL BE CONTROLLED SO THAT IT WILL PASS FREELY, OR WITH FINGER PRESSURE, THROUGH A RING GAGE WITH DIAMETER OF .010 (+.001, -.000) GREATER THAN MAXIMUM MAJOR DIAMETER OF BOLT THREAD.

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