

FED. SUPPLY CLASS

5306

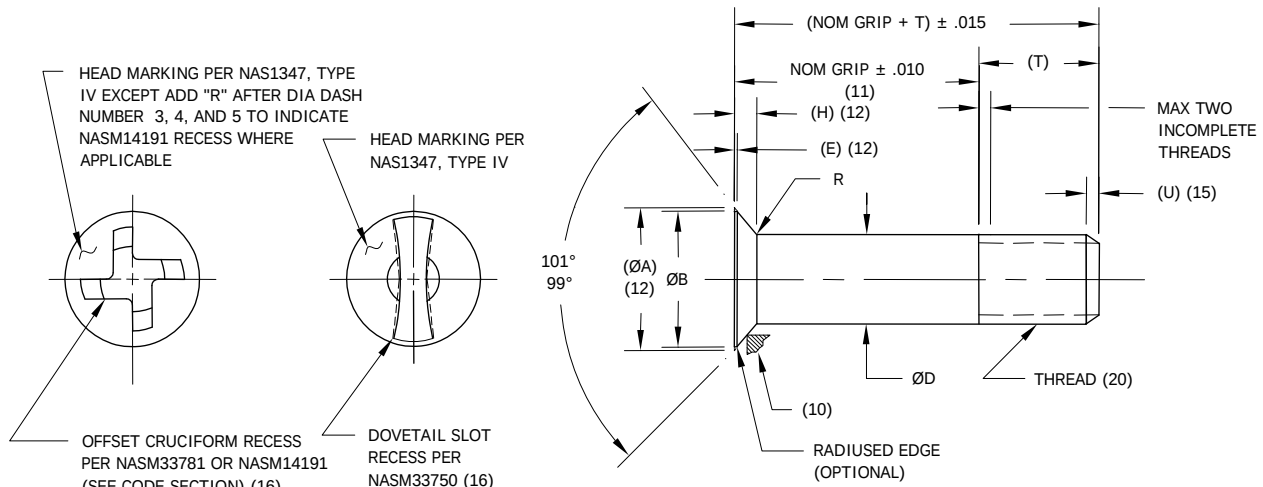
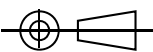


FIGURE 1 – DIMENSIONS

TABLE I – DIMENSIONS

DIA DASH NO.	THREAD UNJF-3A /20/	ØA REF /12/	ØB MIN	ØD		E REF /12/	H REF /12/	R RAD	T REF	U REF /15/	Y TOL /13/	Z TOL /14/	TENSILE STRENGTH LBF MIN	
				PLATED	UNPLATED								MAT CODE C /9/ /17/	MAT CODE F,K /18/
3	.1900-32	.3047	.2578	.1895 .1885	.1895 .1890	.015	.049	.020 .010	.363	.050	.005	.0040	2,000	1,600
4	.2500-28	.3988	.3504	.2495 .2485	.2495 .2490	.015	.063	.020 .010	.403	.050	.006	.0030	3,700	3,200
5	.3125-24	.4787	.4289	.3120 .3110	.3120 .3115	.015	.070	.025 .010	.501	.060	.007	.0030	5,000	4,230
6	.3750-24	.5662	.5149	.3745 .3735	.3745 .3740	.015	.081	.030 .015	.594	.060	.008	.0025	7,200	6,160
7 /19/ 7B	.4375-20	.6741	.6047	.4370 .4360	.4370 .4365	.022	.100	.030 .015	.675	.080	.009	.0025	~~10,000~~ 9,000	8,320
8	.5000-20	.7611	.6901	.4995 .4985	.4995 .4990	.022	.111	.030 .015	.768	.080	.010	.0020	13,500	11,300
9	.5625-18	.8449	.7655	.5615 .5605	.5615 .5610	.025	.119	.030 .015	.881	.090	.010	.0020	17,000	14,300
10	.6250-18	.9329	.8518	.6240 .6230	.6240 .6235	.025	.130	.030 .015	.981	.090	.010	.0020	21,000	18,000

THIRD
ANGLE
PROJECTION



CUSTODIAN
NATIONAL AEROSPACE STANDARDS COMMITTEE

REVISION
13

PROCUREMENT
SPECIFICATION

TITLE

CLASSIFICATION
PART STANDARD

NOTED

**BOLT, SHEAR, 100° FLUSH REDUCED HEAD, OFFSET
CRUCIFORM, OFFSET CRUCIFORM – RIBBED AND DOVETAIL
SLOT, 95 KSI Fsu**

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SHEET 1 OF 8
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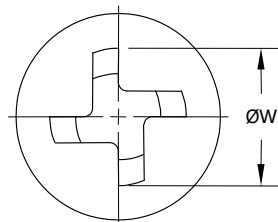


FIGURE 2 – OFFSET CRUCIFORM RECESS

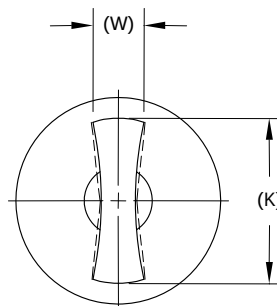
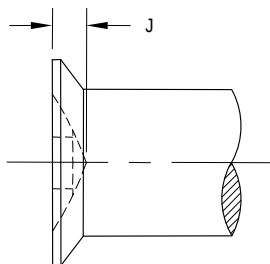


FIGURE 3 – DOVETAIL SLOT RECESS

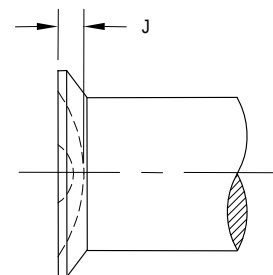


TABLE II – OFFSET CRUCIFORM RECESS DIMENSIONS

DIA DASH NO.	RECESS SIZE	J MAX	ØW MAX	GAGE PENETRATION		RECESS TORQUE IN-LBF MIN
				MIN	MAX	
3	8	.078	.215	.0480	.0595	37
4	10	.090	.248	.0560	.0685	50
5	1/4	.118	.325	.0750	.0890	125
6	5/16	.122	.357	.0700	.0860	250
7B	3/8	.145	.427	.0850	.1030	430
8	7/16	.169	.498	.1005	.1205	760
9	1/2	.193	.568	.1155	.1375	1,060
10	9/16	.217	.638	.1305	.1545	1,440

TABLE III – DOVETAIL SLOT RECESS DIMENSIONS

DIA DASH NO.	RECESS NO.	J		(K)	(W)	RECESS TORQUE IN-LBF MIN
		MIN	MAX			
3	2	.036	.039	.224	.100	37
4	3	.042	.045	.300	.110	50
5	4	.046	.049	.394	.134	125
6	5	.061	.064	.484	.160	250
7B	6	.066	.070	.571	.198	430
8	7	.082	.086	.660	.224	760
9	8	.094	.098	.731	.256	1,060
10	9	.100	.104	.819	.300	1,440

MATERIAL: ALLOY STEEL: 4140 (UNS G41400) PER AMS6382,
4340 (UNS G43406) PER AMS6415 OR AMS6484, OR
8740 (UNS G87400) PER AMS6322.

CRES: A286 (UNS S66286) SHALL CONFORM TO THE CHEMISTRY OF AMS5731, AMS5732,
AMS5737 OR AMS5853.

TITANIUM ALLOY: 6AL-4V (UNS R56400) PER AMS4928 OR AMS4967.

HEAT TREAT: DEVELOP BASIC MATERIAL PROPERTIES AS FOLLOWS, WITH CONTROLS PER AMS2759 FOR ALLOY
STEEL AND CRES AND AMS2801 FOR TITANIUM.

ALLOY STEEL: 160-180 KSI Ft_u
CRES: 160-190 KSI Ft_u /9/
TITANIUM: 160 KSI Ft_u MIN

FINISH: ALLOY STEEL: CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2.

CRES: PASSIVATE IN ACCORDANCE WITH AMS2700 METHOD 1, TYPE 2 OR 8, CLASS 4,
PASSIVATE IN ACCORDANCE WITH AMS2700 METHOD 1, TYPE 8, CLASS 4 - NO POST
TREATMENT,
PASSIVATE IN ACCORDANCE WITH AMS2700 METHOD 2 - NO POST TREATMENT OR
CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2. (SEE CODE FOR FINISH)

TITANIUM: NONE OR ALUMINUM COATING PER NAS4006. (SEE CODE FOR FINISH)

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CODE: THE DIAMETER DASH NUMBER FOLLOWING THE MATERIAL CODE DESIGNATES THE NOMINAL DIAMETER IN .0625 INCH INCREMENTS AND THE GRIP DASH NUMBER FOLLOWING THE RECESS CODE DESIGNATES THE GRIP LENGTH IN .0625 INCH INCREMENTS. IF MORE THAN ONE CODE LETTER IS USED IN THE PART NUMBER FOLLOWING THE GRIP DASH NUMBER, ARRANGE THE CODE LETTERS ALPHABETICALLY.

(13) MATERIAL: CODE LETTER "A" FOLLOWING BASIC PART NUMBER INDICATES ALLOY STEEL. /8/
CODE LETTER "F" FOLLOWING BASIC PART NUMBER INDICATES ALLOY STEEL.
(13) CODE LETTER "C" FOLLOWING BASIC PART NUMBER INDICATES CRES.
CODE LETTER "V" FOLLOWING BASIC PART NUMBER INDICATES TITANIUM 6AL-4V. /8/
CODE LETTER "K" FOLLOWING BASIC PART NUMBER INDICATES TITANIUM.

(13) FINISH: ALLOY STEEL: NO CODE LETTER FOLLOWING GRIP DASH NUMBER INDICATES CADMIUM PLATE.

(13) CRES: NO CODE LETTER FOLLOWING GRIP DASH NUMBER INDICATES PASSIVATE PER AMS2700 METHOD 1, TYPE 2 OR 8, CLASS 4.
CODE LETTER "B" FOLLOWING GRIP DASH NUMBER INDICATES PASSIVATE IN ACCORDANCE WITH AMS2700 METHOD 2 - NO POST TREATMENT.
CODE LETTER "M" FOLLOWING GRIP DASH NUMBER INDICATES PASSIVATE IN ACCORDANCE WITH AMS2700 METHOD 1, TYPE 8, CLASS 4- NO POST TREATMENT.
CODE LETTER "P" FOLLOWING GRIP DASH NUMBER INDICATES CADMIUM PLATE.

TITANIUM: NO CODE FOLLOWING GRIP DASH NUMBER INDICATES NO FINISH.
(13) CODE LETTER "G" FOLLOWING GRIP DASH NUMBER INDICATES ALUMINUM COAT PER NAS4006, NO CLASS.
CODE LETTER "S" FOLLOWING GRIP DASH NUMBER INDICATES ALUMINUM COAT PER NAS4006, CLASS NC

RECESS: CODE LETTER "H" FOLLOWING DIA DASH NUMBER INDICATES DOVETAIL SLOT RECESS PER NASM33750.
CODE LETTER "R" FOLLOWING DIA DASH NUMBER INDICATES RIBBED OFFSET CRUCIFORM RECESS PER NASM14191 FOR DIA DASH NUMBERS 3, 4 AND 5.
CODE LETTER "T" FOLLOWING DIA DASH NUMBER INDICATES OFFSET CRUCIFORM RECESS PER NASM33781.

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

EXAMPLE OF PART NUMBER:

(13) NAS1581C4H5 = .2500-28 CRES BOLT, .312 GRIP LENGTH, PASSIVATED PER AMS2700 METHOD 1, TYPE 2 OR 8, CLASS 4, NASM33750 DOVETAIL SLOT RECESS.
NAS1581C4T5P = .2500-28 CRES BOLT, .312 GRIP LENGTH, CADMIUM PLATE, NASM33781 OFFSET CRUCIFORM RECESS.
~~NAS1581V4R5 = .2500-28 TITANIUM BOLT, .312 GRIP LENGTH, NASM14191 RIBBED OFFSET CRUCIFORM RECESS.~~
NAS1581F4H5 = .2500-28 ALLOY STEEL BOLT, .312 GRIP LENGTH, CADMIUM PLATE, NASM33750 DOVETAIL SLOT RECESS.
NAS1581K4R5 = .2500-28 TITANIUM BOLT, .312 GRIP LENGTH, NASM14191 RIBBED OFFSET CRUCIFORM RECESS.
(13) NAS1581K4T5G = .2500-28 TITANIUM BOLT, .312 GRIP LENGTH, NASM33781 OFFSET CRUCIFORM RECESS, ALUMINUM COATING PER NAS4006, NO CLASS.
(13) NAS1581C4T5B = .2500-28 CRES BOLT, .312 GRIP LENGTH, PASSIVATED PER AMS2700 METHOD 2 - NO POST TREATMENT, NASM33781 OFFSET CRUCIFORM RECESS.

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SHEET 3

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