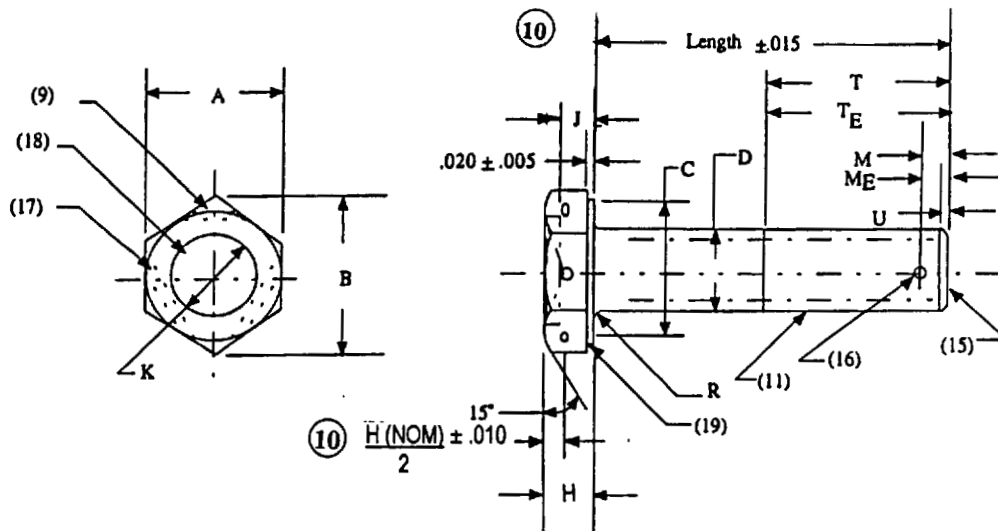




RESTRICTED USAGE: FOR REPAIR WORK ONLY

.0156 OVERSIZE SHANK FOR REPLACEMENT OF NOMINAL SIZE BOLTS



FOR DESCRIPTION OF STATUS NOTES SEE NAS380

TABLE I

BASIC PART NUMBER	THREAD UNJF-3A See Note (11)	A		B (5) MIN	C (3) MIN	Ø D (10)				H +.015 -.000
						~~BEFORE PLATE~~		~~AFTER PLATE~~		
		MAX	MIN			MAX	MIN	MAX	MIN	
NAS2903	.1900-32	.376	.367	.43	.335	.2018	.2012	.2026	.2016	.110
NAS2904	.2500-28	.439	.430	.51	.398	.2643	.2637	.2651	.2641	.125
NAS2905	.3125-24	.502	.492	.58	.460	.3268	.3262	.3276	.3266	.156
NAS2906	.3750-24	.564	.553	.65	.523	.3893	.3887	.3901	.3891	.188

List of Current Sheets

Sheet No.	Rev	Sheet No.	Rev	Sheet No.	Rev
1	10	4	6	7	3
2	6	5	3	8	New
3	10	6	3	9	.1

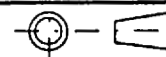
INACTIVE FOR DESIGN AFTER JULY 1,1976

FOR NAS2903-() THRU NAS2920-() SEE NAS6603-()X THRU NAS6620-()X

FOR NAS2903E() THRU NAS2920E() SEE NAS6203-()X THRU NAS6220-()X

CUSTODIAN: NATIONAL AEROSPACE STANDARDS COMMITTEE

THIRD
ANGLE
PROJECTION



PROCUREMENT
SPECIFICATION

TITLE

CLASSIFICATION
PART STANDARD

(10) NOTED

**BOLT, SHEAR, HEXAGON HEAD,
.0156 OVERSIZE SHANK, 95 KSI F_{tu}**

NAS 2903 THRU 2920

SHEET 1 of 9

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TABLE I (Continued)

BASIC PART NUMBER	THREAD UNJF-3A See Note (11)	A		B (5) MIN	C (3) MIN	D				H +.015 -.000
		MAX	MIN			BEFORE PLATE		AFTER PLATE		
						MAX	MIN	MAX	MIN	
NAS2907	.4375-20	.690	.679	.79	.648	.4518	.4512	.4526	.4516	.219
NAS2908	.5000-20	.752	.741	.87	.710	.5143	.5137	.5151	.5141	.250
NAS2909	.5625-18	.877	.865	1.01	.835	.5763	.5757	.5771	.5761	.281
NAS2910	.6250-18	.940	.928	1.09	.898	.6388	.6382	.6396	.6386	.312
NAS2912	.7500-16	1.064	1.052	1.23	1.023	.7638	.7632	.7646	.7636	.375
NAS2914	.8750-14	1.252	1.239	1.44	1.210	.8888	.8882	.8896	.8886	.438
NAS2916	1.0000-12	1.440	1.427	1.66	1.398	1.0138	1.0132	1.0146	1.0136	.500
NAS2916A	1.0000-14	1.440	1.427	1.66	1.398	1.0138	1.0132	1.0146	1.0136	.500
NAS2918	1.1250-12	.1627	1.614	1.88	1.585	1.1388	1.1377	1.1396	1.1381	.562
NAS2920	1.2500-12	1.815	1.801	2.10	1.772	1.2638	1.2627	1.2646	.12631	.625

TABLE I (Continued)

BASIC PART NUMBER	THREAD UNJF-3A See Note (11)	J +.015 -.000	K DIA ±.010	M (12) ±.010	M _R (12) ±.010	N DIA +.010 -.000	P DIA ±.010 (4)	R RAD		T (5) (12) REF	T _R (5) (12) REF	U (5) REF
								MAX	MIN			
NAS2903	.1900-32	.073	.190	.163	.117	.046	.070	.020	.010	.338	.276	.016
NAS2904	.2500-28	.083	.250	.178	.116	.046	.076	.020	.010	.425	.316	.018
NAS2905	.3125-24	.104	.310	.181	.119	.070	.076	.020	.010	.469	.375	.021
NAS2906	.3750-24	.125	.380	.197	.120	.070	.106	.025	.015	.578	.391	.021
NAS2907	.4375-20	.146	.440	.201	.124	.070	.106	.025	.015	.594	.453	.025
NAS2908	.5000-20	.167	.500	.216	.123	.070	.106	.030	.020	.735	.453	.025
NAS2909	.5625-18	.188	.560	.218	.124	.070	.141	.035	.020	.840	.511	.028
NAS2910	.6250-20	.208	.620	.249	.124	.070	.141	.040	.025	.902	.543	.028
NAS2912	.7500-16	.250	.750	.252	.128	.070	.141	.045	.030	1.041	.572	.031
NAS2914	.8750-14	.292	.880	.257	.134	.070	.141	.050	.035	1.184	.652	.036
NAS2916	1.0000-12	.333	1.000	.264	.139	.070	.141	.060	.045	1.309	.770	.042
NAS2916A	1.0000-14	.333	1.000	.264	.139	.070	.141	.060	.045	1.291	.752	.042
NAS2918	1.1250-12	.375	1.120	.357	.170	.070	.141	.070	.055	1.458	.864	.042
NAS2920	1.2500-12	.417	1.250	.389	.170	.070	.141	.075	.060	1.646	.958	.042

⑥ Completely Revised

NAS 2903 THRU 2920

SHEET 2

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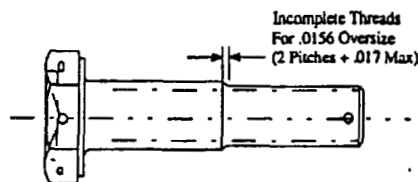
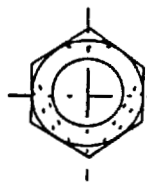
Documents

Document Sharing Hub



TABLE I (Continued)

BASIC PART NUMBER	THREAD UNJF-3A See Note (11)	INSPECTION DATA		
		X (6)	Y (6)	Z (6)
NAS2903	.1900-32	.005	.0045	.0040
NAS2904	.2500-28	.006	.0045	.0030
NAS2905	.3125-24	.008	.0045	.0030
NAS2906	.3750-24	.009	.0060	.0025
NAS2907	.4375-20	.010	.0060	.0025
NAS2908	.5000-20	.011	.0060	.0020
NAS2909	.5625-18	.012	.0060	.0020
NAS2910	.6250-20	.015	.0060	.0020
NAS2912	.7500-16	.018	.0090	.0020
NAS2914	.8750-14	.020	.0090	.0020
NAS2916	1.0000-12	.022	.0090	.0020
NAS2918	1.1250-12	.025	.0090	.0020
NAS2920	1.2500-12	.028	.012	.0020



PROCUREMENT SPECIFICATION:

- ⑩ NAS4002 EXCEPT AS NOTED: COLD WORKING OF THE HEAD TO SHANK FILLET AND STRESS DURABILITY NOT APPLICABLE. EXCEPT FOR 1900-32, ALL BOLTS REQUIRE 100% MAGNETIC PARTICLE INSPECTION PER ASTM E1444.

- ⑩ **MATERIAL:** Alloy Steel-4340(UNS G43400) per AMS6484, 4340(UNS G43406) per AMS6415 or 8740(UNS G87400) per AMS6322 or MIL-S-6049.
- ⑩ **HEAT TREAT** Develop basic material properties as follows, with controls per MIL-H-6875: 160-180KSI Ft_u per MIL-H-6875.

FINISH: Alloy Steel - Cadmium Plate per QQ-P-416, Type II, Class 2. ~~Type I plating designated by "W" see code.~~

SURFACE TEXTURE: Head to shank fillet, thread sides, thread root, and runout, 32 microinches Ra. Shank and bearing surface of head, 63 microinches Ra. Other areas, 125 microinches Ra per ASME B46.1

HEAD MARKING: Basic part number, applicable dash number, manufacturer's trade mark, raised or depressed .010 max., location optional. See Note (9).

NAS 2903 THRU 2920

SHEET 3

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1250 EYE STREET N.W.
WASHINGTON, D.C. 20005

THIS DRAWING SUPERSEDES ALL ANTECEDENT STANDARD DRAWINGS FOR THE SAME PRODUCT AND SHALL BECOME EFFECTIVE NO LATER THAN SIX MONTHS FROM THE LAST DATE OF APPROVAL SHOWN HEREON

APPROVAL DATE APR. 1958 REVISION ⑩ 15 JUL 1994 ⑨ 5 DEC. 1996 ⑩ 31 JAN 2001