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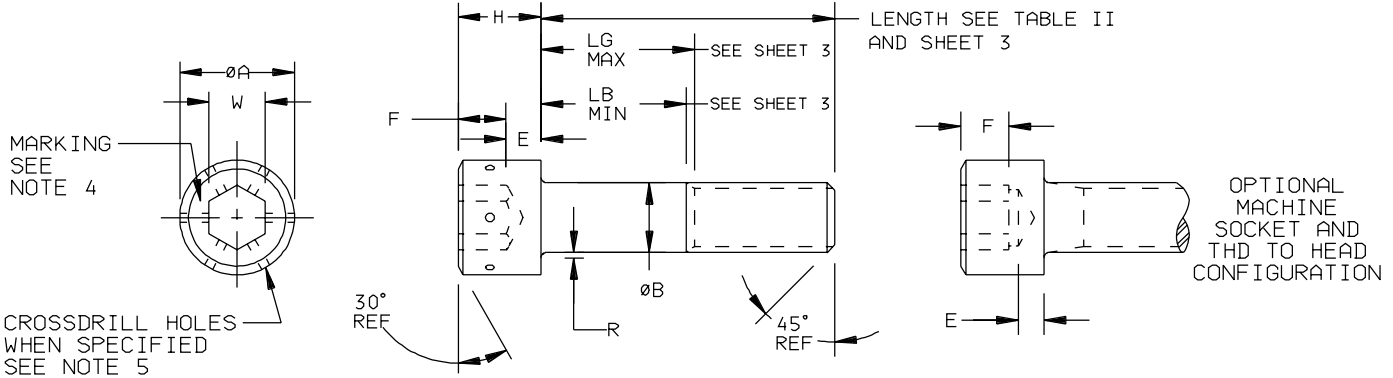


TABLE I

DASH NUMBER	THREAD SIZE	ØA	ØB	E MIN	F MIN	H	R FILLET EXT	W NOM
90	.060-80 UNRF-3A	.096	.060	.020	.025	.060	.007	.050
91	.073-64 UNRC-3A	.118	.075	.025	.031	.073	.007	.062
	.073-72 UNRF-3A	.112	.0695			.070	.003	
92	.086-56 UNRC-3A	.140	.086	.029	.038	.086	.008	.078
	.086-64 UNRF-3A	.134	.0822			.083	.004	
93	.099-48 UNRC-3A	.161	.099	.034	.044	.099	.008	.078
	.099-56 UNRF-3A	.154	.0949			.095	.004	
94	.112-40 UNRC-3A	.183	.112	.038	.051	.112	.009	.094
	.112-48 UNRF-3A	.176	.1075			.108	.005	
95	.125-40 UNRC-3A	.205	.125	.043	.057	.125	.010	.094
	.125-44 UNRF-3A	.198	.1202			.121	.006	
96	.138-32 UNRC-3A	.226	.138	.047	.064	.138	.010	.109
	.138-40 UNRF-3A	.218	.1329			.134	.006	
98	.164-32 UNRC-3A	.270	.164	.056	.077	.164	.012	.141
	.164-36 UNRF-3A	.262	.1585			.159	.007	
3	.190-24 UNRC-3A	.312	.190	.065	.090	.190	.014	.156
	.190-32 UNRF-3A	.303	.184			.185	.009	
4	.250-20 UNRC-3A	.375	.250	.095	.120	.250	.014	.188
	.250-28 UNRF-3A	.365	.2435			.244	.009	
5	.312-18 UNRC-3A	.469	.3125	.119	.151	.312	.017	.250
	.312-24 UNRF-3A	.457	.3053			.306	.012	
6	.375-16 UNRC-3A	.562	.375	.143	.182	.375	.020	.312
	.375-24 UNRF-3A	.550	.3678			.368	.015	
7	.437-14 UNRC-3A	.656	.4375	.166	.213	.438	.023	.375
	.437-20 UNRF-3A	.642	.4294			.430	.018	
8	.500-13 UNRC-3A	.750	.500	.190	.245	.500	.026	.375
	.500-20 UNRF-3A	.735	.4919			.492	.020	
9	.562-12 UNRC-3A	.843	.5625	.214	.265	.562	.028	.437
	.562-18 UNRF-3A	.827	.5538			.554	.022	
10	.625-11 UNRC-3A	.938	.625	.238	.307	.625	.032	.500
	.625-18 UNRF-3A	.921	.6163			.616	.024	
12	.750-10 UNRC-3A	1.125	.750	.285	.370	.750	.039	.625
	.750-16 UNRF-3A	1.107	.7406			.740	.030	
14	.875-9 UNRC-3A	1.312	.875	.333	.432	.875	.044	.750
	.875-14 UNRF-3A	1.293	.8647			.864	.034	
16	1.000-8 UNRC-3A	1.500	1.000	.380	.495	1.000	.050	.750
	1.000-12 UNRF-3A	1.479	.9886			.988	.040	
	1.000-14 UNRS-3A							

TABLE II

SIZE	LENGTH TOLERANCE TABLE			
	UP TO 1" INCL.	OVER 1" TO 2-1/2 INCL.	OVER 2-1/2 TO 6" INCL.	OVER 6"
H0 THRU 3/8"	-0.03	-0.04	-0.06	-0.12
7/16" THRU 3/4"	-0.03	-0.06	-0.08	-0.12
7/8" AND 1-1/2"	-0.05	-0.10	-0.14	-0.20
OVER 1-1/2"	---	-0.18	-0.20	-0.24

TOLERANCES ±.010 AND ±2°
 SURFACE ROUGHNESS 125
 UNLESS OTHERWISE NOTED
 DRAWN BY: KATHY SCHWARTZ DATE: 6/12/97
 APPROVED: S FOSTER DATE: 3/12/03
 APPROVED: L KLINE

FSCM NO. 56878
 CUSTODIAN: JENKINTOWN, PA.
SCREW, SOCKET HEAD CAP, HEXAGON RECESS AUSTENITIC STAINLESS STEEL 1960 SERIES

STANDARDS AND SPECIFICATIONS
 FF-S-86
 EXCEPT AS NOTED
 PART NUMBER:
 94708() ()-() ()-() ()

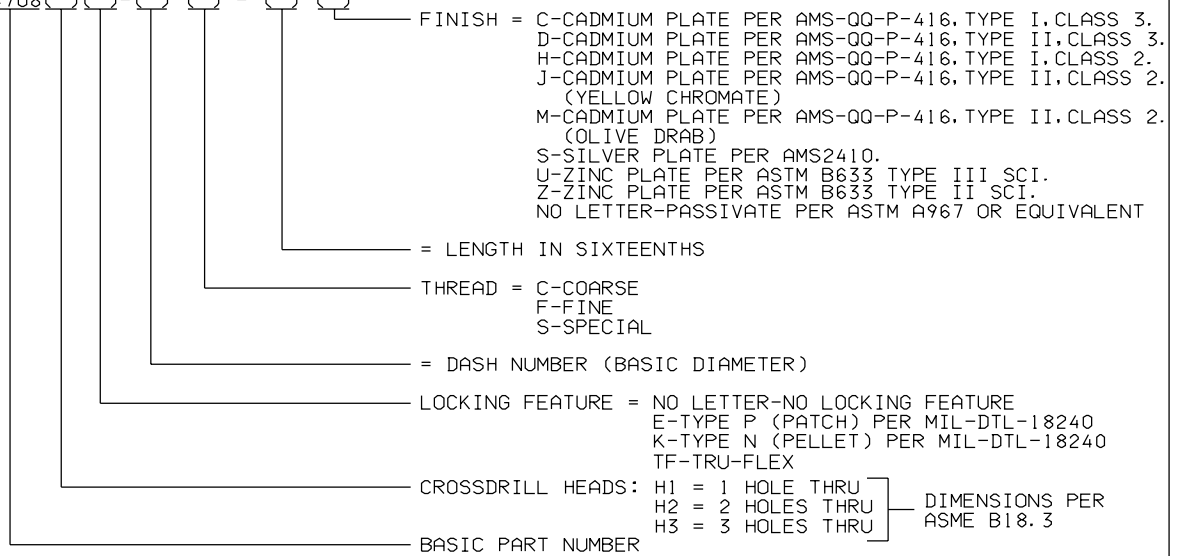


TABLE III

SIZE	TENSILE STRENGTH IN POUNDS		DOUBLE SHEAR STRENGTH OF BODY LBS. MIN.
	UNRC	UNRF	
#0	----	140	250
#1	210	220	380
#2	300	320	520
#3	390	420	700
#4	480	530	890
#5	640	660	1,100
#6	730	810	1,350
#8	1,120	1,180	1,900
#10	1,400	1,600	2,550
1/4	2,540	2,910	4,420
5/16	4,200	4,640	6,900
3/8	6,200	7,020	9,940
7/16	8,500	9,500	13,500
1/2	11,400	12,800	17,700
9/16	14,600	16,200	22,400
5/8	18,100	20,500	27,600
3/4	26,700	29,800	39,800
7/8	37,000	40,700	54,100
1	48,500	53,000	70,700

THE TENSILE STRENGTH IS BASED ON 80 KSI STRESS LEVEL AND THE AREA PER ASME B1.1. THE SHEAR STRENGTH IS BASED ON A STRESS OF 45 KSI AND THE AREA AT NOMINAL "ØB."

1. MATERIAL: AUSTENITIC STAINLESS STEEL PER CHEMISTRY OF ASTM A493.
2. FINISH: SEE NOTE 5.
3. DIMENSIONS, GEOMETRIC TOLERANCE PER ASME B18.3 - INCLUDING MANUFACTURING NOTES NOT LISTED IN THIS DRAWING.
4. MARK SPS' MANUFACTURER'S IDENTIFICATION. LOCATION OPTIONAL ON TOP OR SIDE OF HEAD.
5. PART NUMBERING: 94708() () - () () - () ()



TOLERANCES ±.010 AND ±2"
 SURFACE ROUGHNESS 125
 UNLESS OTHERWISE NOTED

DRAFTED
 IN ACCORDANCE
 WITH ASME Y14.5M



PART NUMBER:

94708() () - () () - () ()



TABLE IV

FOR LENGTHS SHORTER THAN LISTED. (LENGTHS ABOVE HEAVY LINE)
SCREWS WILL BE THREADED AS CLOSE TO THE HEAD AS PRACTICABLE (APPROX. WITHIN 2 THREAD PITCHES)

BODY AND GRIP LENGTHS FOR SOCKET HEAD CAP SCREWS

SIZE	#0		#1		#2		#3		#4		#5		#6		#8		#10		
NOM. LENGTH	L _G	L _B	L _G	L _B	L _G	L _B	L _G	L _B	L _G	L _B	L _G	L _B	L _G	L _B	L _G	L _B	L _G	L _B	
3/4	0.250	0.190																	
7/8	0.250	0.190	0.250	0.170	0.250	0.160	0.250	0.150											
1	0.500	0.440	0.250	0.170	0.250	0.160	0.250	0.150	0.250	0.120	0.250	0.120							
1-1/4	0.750	0.690	0.620	0.550	0.620	0.540	0.620	0.520	0.250	0.120	0.250	0.120	0.500	0.340	0.380	0.220	0.380	0.170	
1-1/2			0.880	0.800			0.880	0.790	0.880	0.770	0.750	0.620	0.500	0.340	0.380	0.220	0.380	0.170	
1-3/4					1.120	1.040			1.120	1.020	0.750	0.620	1.000	0.840	0.880	0.720	0.880	0.670	
2									1.380	1.270	1.250	1.120	1.250	1.120	1.000	0.840	0.880	0.720	0.880
2-1/4													1.250	1.120	1.500	1.340	1.380	1.220	1.380
2-1/2													1.250	1.120	1.500	1.340	1.380	1.220	1.380
2-3/4													1.750	1.620	2.000	1.840	1.880	1.720	1.880
3															2.000	1.840	1.880	1.720	1.880
3-1/4																	2.380	2.220	2.380
3-1/2																			2.380
3-3/4																			2.880
4																			2.880

SIZE	1/4		5/16		3/8		7/16		1/2		9/16		5/8		3/4		7/8		
NOM. LENGTH	L _G	L _B	L _G	L _B	L _G	L _B	L _G	L _B	L _G	L _B	L _G	L _B	L _G	L _B	L _G	L _B	L _G	L _B	
1-1/2	0.500	0.250																	
1-3/4	0.500	0.250	0.620	0.350	0.500	0.190													
2	1.000	0.750	0.620	0.350	0.500	0.190	0.620	0.270											
2-1/4	1.000	0.750	1.120	0.850	1.000	0.690	0.620	0.270	0.750	0.360									
2-1/2	1.500	1.250	1.120	0.850	1.000	0.690	1.120	0.770	0.750	0.360	0.870	0.460							
2-3/4	1.500	1.250	1.620	1.350	1.500	1.190	1.120	0.770	0.750	0.360	0.870	0.460	0.750	0.300					
3	2.000	1.750	1.620	1.350	1.500	1.190	1.620	1.270	1.500	1.120	0.870	0.460	0.750	0.300	1.000	0.500			
3-1/4	2.000	1.750	2.120	1.850	2.000	1.690	1.620	1.270	1.500	1.120	1.620	1.210	0.750	0.300	1.000	0.500	1.000	0.440	
3-1/2	2.500	2.250	2.120	1.850	2.000	1.690	2.120	1.770	1.500	1.120	1.620	1.210	1.500	1.040	1.000	0.500	1.000	0.440	
3-3/4	2.500	2.250	2.620	2.350	2.500	2.190	2.120	1.770	2.250	1.860	1.620	1.210	1.500	1.040	1.000	0.500	1.000	0.440	
4	3.000	2.750	2.620	2.350	2.500	2.190	2.620	2.270	2.250	1.860	2.370	1.960	1.500	1.040	1.000	0.500	1.000	0.440	
4-1/4	3.000	2.750	3.120	2.850	3.000	2.690	2.620	2.270	2.250	1.860	2.370	1.960	2.250	1.800	2.000	1.500	2.000	1.440	
4-1/2	3.500	3.250	3.120	2.850	3.000	2.690	3.120	2.770	3.000	2.620	2.370	1.960	2.250	1.800	2.000	1.500	2.000	1.440	
4-3/4	3.500	3.250	3.620	3.350	3.500	3.190	3.120	2.770	3.000	2.620	3.120	2.710	2.250	1.800	2.000	1.500	2.000	1.440	
5	4.000	3.750	3.620	3.350	3.500	3.190	3.620	3.270	3.000	2.620	3.120	2.710	3.000	2.540	3.000	2.500	2.000	1.440	
5-1/4	4.000	3.750	4.120	3.850	4.000	3.690	3.620	3.270	3.750	3.360	3.120	2.710	3.000	2.540	3.000	2.500	3.000	2.440	
5-1/2			4.120	3.850	4.000	3.690	4.120	3.770	3.750	3.360	3.870	3.460	3.000	2.540	3.000	2.500	3.000	2.440	
5-3/4			4.620	4.350	4.500	4.190	4.120	3.770	3.750	3.360	3.870	3.460	3.750	3.300	3.000	2.500	3.000	2.440	
6			4.620	4.350	4.500	4.190	4.620	4.270	4.500	4.120	3.870	3.460	3.750	3.300	4.000	3.500	3.000	2.440	
6-1/4			5.120	4.850	5.000	4.690	4.620	4.270	4.500	4.120	4.620	4.210	3.750	3.300	4.000	3.500	4.000	3.440	
6-1/2					5.000	4.690	5.120	4.770	4.500	4.120	4.620	4.210	4.500	4.040	4.000	3.500	4.000	3.440	
6-3/4					5.500	5.190	5.120	4.770	5.250	4.860	4.620	4.210	4.500	4.040	4.000	3.500	4.000	3.440	
7					5.500	5.190	5.620	5.270	5.250	4.860	5.370	4.960	4.500	4.040	5.000	4.500	4.000	3.440	
7-1/4					6.000	5.690	5.620	5.270	5.250	4.860	5.370	4.960	5.250	4.800	5.000	4.500	5.000	4.440	
7-1/2							6.120	5.770	6.000	5.620	5.370	4.960	5.250	4.800	5.000	4.500	5.000	4.440	
7-3/4							6.120	5.770	6.000	5.620	6.120	5.710	5.250	4.800	5.000	4.500	5.000	4.440	
8							6.620	6.270	6.000	5.620	6.120	5.710	6.000	5.540	6.000	5.500	5.000	4.440	
8-1/2							7.120	6.270	7.000	6.620	6.870	6.460	6.000	5.540	6.000	5.500	6.000	5.440	
9							7.620	7.270	7.000	6.620	6.870	6.460	6.750	6.300	7.000	6.500	6.000	5.440	
9-1/2									8.000	7.620	7.620	7.210	6.750	6.300	7.000	6.500	7.000	6.440	
10									8.000	7.620	7.620	7.210	7.750	7.300	8.000	7.500	7.000	6.440	
11												10.120	8.710	9.250	8.800	8.500	8.000	7.440	
12																11.000	10.000	9.440	
13																12.000	11.000	10.440	
14																13.000	12.000	11.440	
15																		13.000	
16																			3.000
17																			4.000
18																			5.000
19																			
20																			

SIZE	1	
NOM. LENGTH	L _G	L _B
3		
3-1/4		
3-1/2	1.000	0.380
3-3/4	1.000	0.380
4	1.000	0.380
4-1/4	1.000	0.380
4-1/2	2.000	1.380
4-3/4	2.000	1.380
5	2.000	1.380
5-1/4	2.000	1.380
5-1/2	3.000	2.380
5-3/4	3.000	2.380
6	3.000	2.380
6-1/4	3.000	2.380
6-1/2	4.000	3.380
6-3/4	4.000	3.380
7	4.000	3.380
7-1/4	4.000	3.380
7-1/2	5.000	4.380
7-3/4	5.000	4.380
8	5.000	4.380
8-1/2	6.000	5.380
9	6.000	5.380
9-1/2	7.000	6.380
10	7.000	6.380
11	8.000	7.380
12	9.000	8.380
13	10.000	9.380
14	11.000	10.380
15	12.000	11.380
16	13.000	12.380
17	14.000	13.380
18	15.000	14.380
19	16.000	15.380
20	17.000	16.380

TOLERANCES ±.010 AND ±.2"
SURFACE ROUGHNESS 125
UNLESS OTHERWISE NOTED

DRAFTED IN ACCORDANCE WITH ASME Y14.5M



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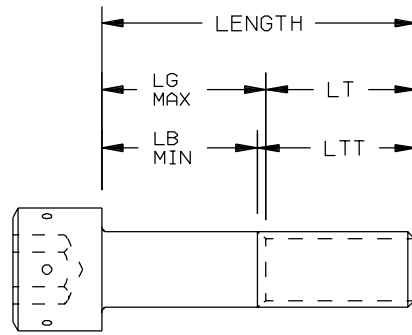


TABLE V

BASIC THREAD DIAMETER	LT THREAD LENGTH MIN	LTT TOTAL THREAD LENGTH MAX
#0	0.50	0.62
#1	0.62	0.77
#2	0.62	0.80
#3	0.62	0.83
#4	0.75	0.99
#5	0.75	1.00
#6	0.75	1.05
#8	0.88	1.19
#10	0.88	1.27
1/4	1.00	1.50
5/16	1.12	1.71
3/8	1.25	1.94
7/16	1.38	2.17
1/2	1.50	2.38
5/8	1.75	2.82
3/4	2.00	3.25
7/8	2.25	3.69
1	2.50	4.12

THE LENGTH OF COMPLETE THREAD "LT" SHALL BE CONTROLLED BY THE GRIP LENGTH "LG" AS DESCRIBED IN NOTE A), AND THE LENGTH OF TOTAL THREAD "LTT" SHALL BE CONTROLLED BY THE BODY LENGTH "LB" AS SET FORTH IN NOTE B). THE "LT" MINIMUM AND "LTT" MAXIMUM VALUES SHOWN IN TABLE V ARE REFERENCE DIMENSIONS INTENDED FOR CALCULATION PURPOSES ONLY IN ACCORDANCE WITH NOTE C). SEE SKETCH ABOVE.

- A) THE GRIP LENGTH "LG" SHALL BE MAXIMUM AND REPRESENTS THE MINIMUM DESIGN GRIP LENGTH OF THE SCREW. IT SHALL BE MEASURED, PARALLEL TO THE AXIS OF SCREW, FROM THE BEARING SURFACE OF THE HEAD TO THE FACE OF A "GO" THREAD RING GAGE, HAVING THE COUNTERSINK AND/OR COUNTERBORE REMOVED, WHICH HAS BEEN ASSEMBLED BY HAND AS FAR AS THE THREAD WILL PERMIT. THE "LG" MAXIMUM LENGTH IS A CRITERION FOR ACCEPTANCE AND SHALL CONFORM TO THE VALUES GIVEN IN TABLE IV OR, FOR DIAMETER/LENGTH COMBINATIONS NOT SHOWN THEREIN, SHALL BE AS CALCULATED PER NOTE C).
- B) THE BODY LENGTH "LB" SHALL BE MINIMUM AND REPRESENTS THE MINIMUM FULL BODY LENGTH OF THE SCREW. IT SHALL BE MEASURED, PARALLEL TO THE AXIS OF THE SCREW, FROM THE BEARING SURFACE OF THE HEAD TO THE TOP OF THE EXTRUSION ANGLE OR TO THE LAST SCRATCH OF THE THREAD. THE "LB" MINIMUM LENGTH IS A CRITERION FOR ACCEPTANCE AND SHALL CONFORM TO THE VALUES GIVEN IN TABLE IV OR, FOR DIAMETER/LENGTH COMBINATIONS NOT SHOWN THEREIN, SHALL BE AS CALCULATED IN ACCORDANCE WITH NOTE C).
- C) FOR SCREWS OF NOMINAL LENGTH NOT LISTED IN TABLE IV AND FOR NOMINAL SIZES LARGER THAN 1 INCH DIAMETER, THE MAXIMUM GRIP LENGTH "LG" AND MINIMUM BODY LENGTH "LB" SHALL BE DETERMINED FROM THE FOLLOWING FORMULAS:

$LG = \text{LENGTH} - LT$
 $LB = \text{LENGTH} - LTT$

WHERE: LENGTH = NOMINAL SCREW LENGTH; LT = MINIMUM THREAD LENGTH FROM TABLE V;
 LTT = MAXIMUM TOTAL THREAD LENGTH FROM TABLE V.

SCREWS HAVING NOMINAL LENGTH FALLING BETWEEN THOSE FOR WHICH "LG" AND "LB" VALUES ARE TABULATED IN TABLE V SHALL HAVE "LG" AND "LB" DIMENSIONS CONFORMING TO THOSE OF THE NEXT SHORTER TABULATED NOMINAL LENGTH FOR THE RESPECTIVE SCREW SIZE.

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