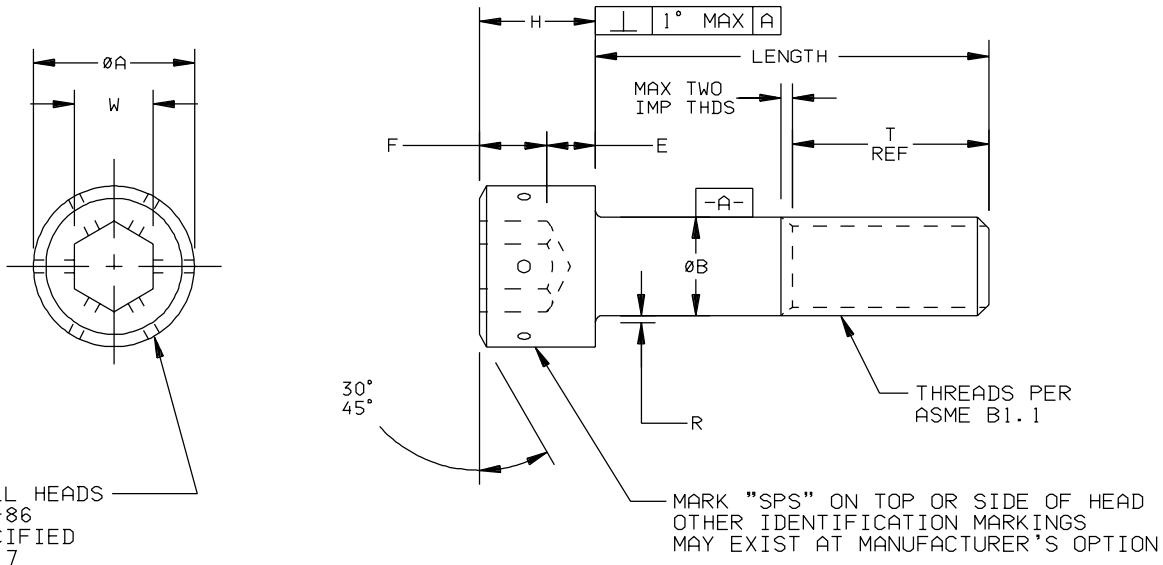




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AUTHORIZATION OF SPS TECHNOLOGIES

DRAWING NUMBER
SD. 300. 96319
ISSUE DATE
11/21/02
REVISION
① 3/31/03



DASH NUMBER	THREADS CLASS 2A	ØA	ØB	E MIN	F MIN	H	R FILLET EXT	T REF	W NOM	TENSILE LBS. MIN
256	.086-56 UNC	.140	.086	.029	.038	.086	.008	.625	.0781	590
264	.086-64 UNF	.134	.0822	.029	.038	.083	.004	.625	.0781	630
348	.099-48 UNC	.161	.099	.034	.044	.099	.008	.625	.0781	780
356	.099-56 UNF	.154	.0949	.034	.044	.095	.004	.625	.0781	840
440	.112-40 UNC	.183	.112	.038	.051	.112	.009	.750	.0937	970
448	.112-48 UNF	.176	.1075	.038	.051	.108	.005	.750	.0937	1,060
540	.125-40 UNC	.205	.125	.043	.057	.125	.010	.750	.0937	1,270
544	.125-44 UNF	.198	.1202	.043	.057	.121	.006	.750	.0937	1,330
632	.138-32 UNC	.226	.138	.047	.064	.138	.010	.750	.1093	1,450
640	.138-40 UNF	.218	.1329	.047	.064	.134	.006	.750	.1093	1,620
832	.164-32 UNC	.270	.164	.056	.077	.164	.012	.875	.1406	2,240
836	.164-36 UNF	.262	.1585	.056	.077	.159	.007	.875	.1406	2,360
1024	.190-24 UNC	.312	.190	.065	.090	.190	.014	.875	.1562	2,800
1032	.190-32 UNF	.303	.184	.065	.090	.185	.009	.875	.1562	3,200
420	.250-20 UNC	.375	.250	.095	.120	.250	.014	1.000	.1875	5,090
428	.250-28 UNF	.365	.2435	.095	.120	.244	.009	1.000	.1875	5,820
518	.312-18 UNC	.469	.3125	.119	.151	.312	.017	1.125	.2500	8,380
524	.312-24 UNF	.457	.3053	.119	.151	.306	.012	1.125	.2500	9,280
616	.375-16 UNC	.562	.375	.143	.182	.375	.020	1.250	.3125	12,400
624	.375-24 UNF	.550	.3678	.143	.182	.368	.015	1.250	.3125	14,000
714	.437-14 UNC	.656	.4375	.166	.213	.438	.023	1.375	.3750	17,000
720	.437-20 UNF	.642	.4294	.166	.213	.430	.018	1.375	.3750	19,000
813	.500-13 UNC	.750	.500	.190	.245	.500	.026	1.500	.3750	22,700
820	.500-20 UNF	.735	.4919	.190	.245	.492	.020	1.500	.3750	25,600
1011	.625-11 UNC	.938	.625	.238	.307	.625	.032	1.750	.5000	36,200
1018	.625-18 UNF	.921	.6163	.238	.307	.616	.024	1.750	.5000	41,000
1210	.750-10 UNC	1.125	.750	.285	.370	.750	.039	2.000	.6250	53,500
1216	.750-16 UNF	1.107	.7406	.285	.370	.740	.030	2.000	.6250	59,700
1409	.875-9 UNC	1.312	.875	.333	.432	.875	.044	2.250	.7500	73,900
1414	.875-14 UNF	1.293	.8647	.333	.432	.864	.034	2.250	.7500	81,500
1608	1.000-8 UNC	1.500	1.000	.380	.495	1.000	.050	2.500	.7500	96,900
1612	1.000-12 UNF	1.479	.9886	.380	.495	.988	.040	2.500	.7500	106,000
1614	1.000-14 UNS	1.479	.9886	.380	.495	.988	.040	2.500	.7500	109,000
1807	1.125-7 UNC	1.688	1.125	.428	.557	1.125	.055	2.812	.8750	122,000
1812	1.125-12 UNF	1.665	1.1086	.428	.557	1.111	.045	2.812	.8750	137,000
2007	1.250-7 UNC	1.875	1.250	.475	.620	1.250	.060	3.125	.8750	155,000
2012	1.250-12 UNF	1.852	1.2336	.475	.620	1.236	.050	3.125	.8750	171,000
2206	1.375-6 UNC	2.062	1.375	.523	.682	1.375	.065	3.437	1.0000	185,000
2212	1.375-12 UNF	2.038	1.3568	.523	.682	1.360	.055	3.437	1.0000	210,000
2406	1.500-6 UNC	2.250	1.500	.570	.745	1.500	.070	3.750	1.0000	225,000
2412	1.500-12 UNF	2.224	1.4818	.570	.745	1.485	.060	3.750	1.0000	253,000

THE TENSILE STRENGTH IS BASED ON 160 KSI STRESS LEVEL AT ROOM TEMPERATURE AND THE AREA PER ASME B1.1.

TOLERANCES ±.010 AND ±2° SURFACE ROUGHNESS 125 UNLESS OTHERWISE NOTED	FSCM NO. 56878 CUSTODIAN: JENKINTOWN, PA.	TITLE SCREW, SOCKET HEAD CAP, HEXAGON RECESS A286, 160 KSI UTS APPLICATIONS TO 1,000°F	STANDARDS AND SPECIFICATIONS FF-S-86 EXCEPT AS NOTED PART NUMBER: 96319()-()-()-()
DRAFTED IN ACCORDANCE WITH ASME Y14.5M DRAWN BY: KATHY SCHWARTZ APPROVED: L. KLINE APPROVED: S. FOSTER	DATE: 11/21/02 DATE: 4/2/03		SHEET 1 OF 2



DRAWING NUMBER
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1. MATERIAL: A286 PER CHEMISTRY OF AMS 5731, AMS 5737 OR AMS 5853.
2. HEAT TREAT: TO MEET THE MINIMUM ULTIMATE TENSILE REQUIREMENTS OF 160 KSI.
3. MANUFACTURING REQUIREMENTS: HEAD SHALL BE FORGED.
SOCKET MAY BE FORGED OR MACHINED.
THREADS TO BE ROLLED AFTER PRECIPITATION HEAT TREATMENT.
4. DIMENSIONS, GEOMETRIC TOLERANCE PER ASME B18.3 - INCLUDING MANUFACTURING NOTES NOT LISTED ON THIS DRAWING.
5. LENGTH TOLERANCE:

DIAMETER	UP TO 1" INCL.	OVER 1" TO 2-1/2" INCL.	OVER 2-1/2" TO 6" INCL.	OVER 6"
.086 THRU .375	-.030	-.040	-.060	-.120
7/16 THRU 3/4	-.030	-.060	-.080	-.120
7/8 THRU 1-1/8	-.050	-.100	-.140	-.200

6. PARTS LONGER THAN "T REF" WILL HAVE A MINIMUM THREAD LENGTH AS TABULATED ON SHEET 1. PARTS EQUAL TO OR SHORTER THAN "T REF" WILL BE THREADED TO HEAD.

7. PART NUMBERING: 96319() - () () () ()

FINISH = B = CHEMICAL BLACK OXIDE PER MIL-DTL-13924
C = CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2
D = CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 3
H = CADMIUM PLATE PER AMS-QQ-P-416, TYPE I, CLASS 2
J = CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2 (YELLOW CHROMATE)
M = CADMIUM PLATE PER AMS-QQ-P-416, TYPE II, CLASS 2 (OLIVE DRAB)
S = SILVER PLATE PER AMS2410
U = ZINC PLATE PER ASTM B633 TYPE III SC1
Z = ZINC PLATE PER ASTM B633 TYPE II SC1
NO LETTER = PASSIVATE PER AMS-QQ-P-35

= LENGTH IN SIXTEENTHS

CROSSDRILLED HEAD = NO LETTER - NO CROSSDRILL HOLE IN HEAD
H1 - 1 HOLE THRU
H2 - 2 HOLES THRU
H3 - 3 HOLES THRU

DASH NUMBER PER TABULATION

LOCKING FEATURE = NO LETTER = NO LOCKING FEATURE
E = TYPE P (PATCH) PER MIL-DTL-18240
K = TYPE N (PELLET) PER MIL-DTL-18240
M = NYTEMP PATCH
TF = TRU-FLEX

BASIC PART NUMBER

8. PERFORMANCE REQUIREMENTS OF MIL-DTL-18240 APPLY TO SCREWS WITH NON-METALLIC LOCKING FEATURES, INCLUDING NYTEMP. (R)
9. THREAD SIZES NOT LISTED IN TABLE VA OR VB OF MIL-DTL-18240, ONLY A POSITIVE INDICATION OF TORQUE IS REQUIRED FOR 5 UNSEATED INSTALLATIONS AND REMOVALS.

(R) NYTEMP IS A REGISTERED TRADEMARK OF NYLOK FASTENER CORPORATION

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

DRAFTED
IN ACCORDANCE
WITH ASME Y14.5M



PART NUMBER:

96319()-() () () ()

SHEET 2 OF 2