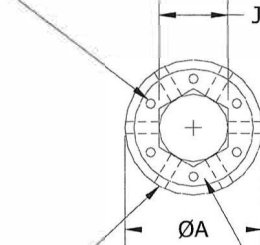


FED. SUPPLY CLASS
5305

WHEN SELF-LOCKING ELEMENT IS SPECIFIED:
HEAD MARKING OF A MINIMUM OF SIX (6)
DOTS, RAISED OR DEPRESSED, IS REQUIRED.
TOP OR SIDE LOCATION OPTIONAL.
(SCREW SIZES 04 AND LARGER)



IDENTIFICATION
SEE NOTE (e)

ØB
FOR NUMBER OF HOLES,
SEE NOTE (d)

30° TO 45°
(f)

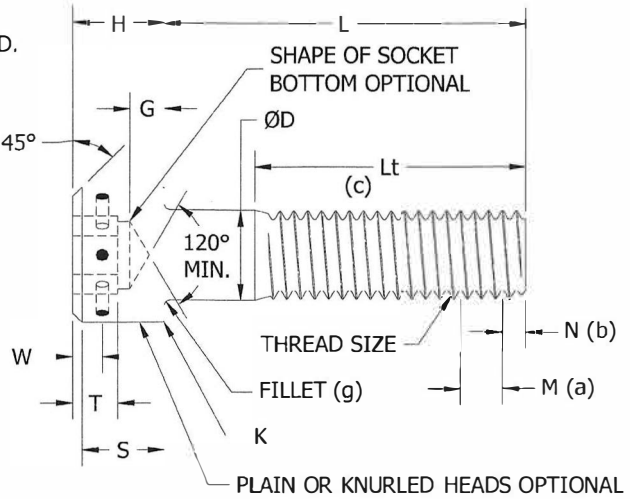


TABLE I

NOMINAL SIZE DASH NO.	THREAD SIZE	D BODY DIAMETER		A HEAD DIAMETER		H HEAD HEIGHT		S HEAD SIDE HEIGHT MIN.	J SOCKET SIZE NOMINAL	T KEY ENGAGEMENT MIN.	G WALL THICKNESS MIN.	K CHAMFER OR RADIUS MAX.
		MAX.	MIN.	MAX.	MIN.	MAX.	MIN.					
01	.0730-64	.073	.0695	.118	.112	.073	.070	.066	.062	.031	.025	.003
02	.0860-56	.086	.0822	.140	.134	.086	.083	.077	.078	.038	.029	.003
03	.0990-48	.099	.0949	.161	.154	.099	.095	.089	.078	.044	.034	.003
04	.1120-40	.112	.1075	.183	.176	.112	.108	.101	.094	.051	.038	.005
06	.1380-32	.138	.1329	.226	.218	.138	.134	.124	.109	.064	.047	.005
08	.1640-32	.164	.1585	.270	.262	.164	.159	.148	.141	.077	.056	.005
3	.1900-24	.190	.1840	.312	.303	.190	.185	.171	.156	.090	.065	.005
4	.2500-20	.250	.2435	.375	.365	.250	.244	.225	.188	.120	.095	.008
5	.3125-18	.3125	.3053	.469	.457	.312	.306	.281	.250	.151	.119	.008
6	.3750-16	.375	.3678	.562	.550	.375	.368	.337	.312	.182	.143	.008
7	.4375-14	.4375	.4294	.656	.642	.437	.430	.394	.375	.213	.166	.010
8	.5000-13	.500	.4919	.750	.735	.500	.492	.450	.375	.245	.190	.010
10	.6250-11	.625	.6163	.937	.921	.625	.616	.562	.500	.307	.238	.010
12	.7500-10	.750	.7406	1.125	1.107	.750	.740	.675	.625	.370	.285	.010
14	.8750-9	.875	.8647	1.312	1.293	.875	.864	.787	.750	.432	.333	.015
16	1.0000-8	1.000	.9886	1.500	1.479	1.000	.988	.900	.750	.495	.380	.015
20	1.2500-7	1.250	1.2336	1.875	1.852	1.250	1.236	1.125	.875	.620	.475	.015
24	1.5000-6	1.500	1.4818	2.250	2.224	1.500	1.485	1.350	1.000	.745	.570	.015

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THIRD ANGLE PROJECTION

PROCUREMENT SPECIFICATION
NOTED

CUSTODIAN
NATIONAL AEROSPACE STANDARDS COMMITTEE

TITLE
SCREW, CAP, SOCKET HEAD, UNDRILLED AND DRILLED, PLAIN AND SELF-LOCKING, ALLOY STEEL, CORROSION-RESISTANT STEEL AND HEAT-RESISTANT STEEL, UNRC-3A AND UNRC-2A

REVISION
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CLASSIFICATION
PART STANDARD
NAS1352
SHEET 1 OF 5

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ISSUE DATE: APRIL 1962 REVISION DATE: JUNE 22, 2009



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TABLE II

NOMINAL SIZE DASH NO.	L _t MINIMUM BASIC THREAD LENGTH (c)	SAFETY WIRE HOLE WHEN SPECIFIED				MINIMUM BREAKING STRENGTH (POUNDS)			
		W DRILLED HOLE LOCATION		ØB DRILLED HOLE (d)		ALLOY STEEL	CORROSION RESISTANT STEEL	HEAT RESISTANT STEEL	
		MAX.	MIN.	MAX.	MIN.				
01	.625	(d)	(d)	(d)	(d)	470	210	412	
02						665	300	592	
03						875	390	780	
04	.750	.040	.026	.039	.033	1,090	480	966	
06		.050	.035			1,640	730	1,458	
08		.060	.040			2,520	1,120	2,240	
3	.875	.065	.045	.050	.044	3,150	1,400	2,800	
4		.085	.065			5,400	5,700(h)	2,540	5,090
5		.104	.084			8,900	9,400(h)	4,190	8,380
6	1.000	.123	.103	.067	.061	13,200	13,900(h)	6,200	12,410
7	1.125	.141	.121			18,100	19,100(h)	8,500	17,010
8	1.250	.160	.140			24,100	25,500(h)	11,300	22,700
10	1.375	.198	.178	.097	.091	38,400	18,100	36,200	
12	1.500	.235	.215			56,800	23,400	53,500	
14	1.750	.273	.253			78,500	32,300	73,900	
16	2.000	.310	.290			103,000	42,400	96,950	
20	2.500					165,000	67,800	155,100	
24	3.125					239,000	98,300	225,000	

- (a) "M" MIN. (5 THREAD PITCHES) = REGION OF MINIMUM ENGAGEMENT WITH FULL FEMALE THREAD REQUIRED TO MEET MIL-DTL-18240 REQUIREMENTS. LOCKING ELEMENT WITHIN "M" REGION MUST DEVELOP REQUIRED TORQUE WHEN TESTED IN ACCORDANCE WITH MIL-DTL-18240. LENGTH OR DIAMETER OF LOCKING ELEMENT MAY BE MORE OR LESS THAN "M" PROVIDING ALL OTHER REQUIREMENTS ARE MET.
- (b) "N" = ONE (1) COMPLETE THREAD PLUS UNTHREADED PORTION OF END. FOR EASE OF STARTING, LOCKING ELEMENT SHALL NOT BE EFFECTIVE WITHIN THIS AREA.
- (c) SCREWS WHICH HAVE A LENGTH LESS THAN THE MINIMUM BASIC THREAD LENGTH, SHALL BE THREADED AS CLOSE TO HEAD AS PRACTICABLE. FOR SCREWS WHICH HAVE A LENGTH GREATER THAN THE MINIMUM BASIC THREAD LENGTH, THE BODY AND GRIP LENGTH SHALL BE IN ACCORDANCE WITH ASME B18.3.
- (d) DRILLED HOLE DATA IN ACCORDANCE WITH PROCUREMENT SPEC FF-S-86. PARTS SHALL HAVE DRILLED HEADS IF SPECIFIED BY CODE H. SCREW SIZES 04 AND 06 SHALL HAVE TWO (2) DRILLED HOLES SPACED 180°. SCREW SIZES 08 THRU 16 SHALL HAVE SIX (6) DRILLED HOLES SPACED 60°. (DRILLED HOLES NOT APPLICABLE TO SCREW SIZES BELOW 04 AND ABOVE 16).
- (e) IDENTIFICATION LETTER "N" IMPRESSED ON THE TOP OR SIDE OF THE HEAD, FOR SCREW SIZES 04 AND LARGER ONLY, TO DENOTE HEAT-RESISTANT STEEL.
- (f) THE INTERSECTION OF THE TOP AND SIDE OF THE HEAD MAY BE CHAMFERED OR RADIUS AT THE MANUFACTURER'S OPTION PER ASME B18.3.
- (g) THE FILLET SHALL BE IN ACCORDANCE WITH ASME B18.3.
- (h) MINIMUM BREAKING STRENGTH VALUES ARE BASED ON 180 KSI HEAT TREATMENT. LINED THROUGH STRENGTH VALUES WERE BASED ON 170 KSI.

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SHEET 2

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TABLE III

L SCREW LENGTH (1)	SCREW SIZE																	
	01	02	03	04	06	08	3	4	5	6	7	8	10	12	14	16	20	24
.125	-01-2																	
.188	-01-3	-02-3																
.250	-01-4	-02-4	-03-4	-04-4	-06-4	-08-4												
.375	-01-6	-02-6	-03-6	-04-6	-06-6	-08-6	-3-6	-4-6	-5-6									
.500		-02-8	-03-8	-04-8	-06-8	-08-8	-3-8	-4-8	-5-8	-6-8								
.625			-03-10	-04-10	-06-10	-08-10	-3-10	-4-10	-5-10	-6-10								
.750				-04-12	-06-12	-08-12	-3-12	-4-12	-5-12	-6-12	-7-12	-8-12						
.875					-06-14	-08-14	-3-14	-4-14	-5-14	-6-14	-7-14	-8-14						
1.000					-06-16	-08-16	-3-16	-4-16	-5-16	-6-16	-7-16	-8-16	-10-16					
1.250						-08-20	-3-20	-4-20	-5-20	-6-20	-7-20	-8-20	-10-20					
1.500						-08-24	-3-24	-4-24	-5-24	-6-24	-7-24	-8-24	-10-24	-12-24				
1.750							-3-28	-4-28	-5-28	-6-28	-7-28	-8-28	-10-28	-12-28				
2.000							-3-32	-4-32	-5-32	-6-32	-7-32	-8-32	-10-32	-12-32	-14-32			
2.250								-4-36	-5-36	-6-36	-7-36	-8-36	-10-36	-12-36	-14-36			
2.500									-5-40	-6-40	-7-40	-8-40	-10-40	-12-40	-14-40	-16-40		
2.750										-6-44	-7-44	-8-44	-10-44	-12-44	-14-44	-16-44		
3.000										-6-48	-7-48	-8-48	-10-48	-12-48	-14-48	-16-48	-20-48	
3.250														-12-52	-14-52	-16-52	-20-52	
3.500														-12-56	-14-56	-16-56	-20-56	-24-56
4.000															-14-64	-16-64	-20-64	-24-64
4.500															-14-72	-16-72	-20-72	-24-72
5.000															-16-80	-20-80	-24-80	
5.500																-20-88	-24-88	
6.000																	-20-96	-24-96

NOTE: SEE CODE FOR ADDITIONAL LENGTHS. (1) LENGTH TOLERANCE SHALL BE AS FOLLOWS:

NOMINAL LENGTH	SIZE		
	0 THRU .375	OVER .375 THRU .750	OVER .750 THRU 1.500
UP TO AND INCL. 1.000	TOLERANCES		
	+.000	+.000	+.000
OVER 1.000 & INCL. 2.500	-.030	-.030	-.050
	+.000	+.000	+.000
OVER 2.500 & INCL. 6.000	-.040	-.060	-.100
	+.000	+.000	+.000
	-.060	-.080	-.140

THREADS: IN ACCORDANCE WITH PROCUREMENT SPECIFICATION. UNRC-3A FOR NOMINAL DIAMETERS 1.000 INCH AND SMALLER. UNRC-2A FOR NOMINAL DIAMETERS GREATER THAN 1.000 INCH.

MATERIAL: ALLOY STEEL IN ACCORDANCE WITH PROCUREMENT SPEC FF-S-86.
CORROSION-RESISTANT STEEL IN ACCORDANCE WITH PROCUREMENT SPEC FF-S-86.
HEAT-RESISTANT STEEL CONFORMING TO CHEMISTRY OF AMS5731 (UNS S66286) OR AMS5737 (UNS S66286) COLD WORKED AND AGE HARDENED TO MEET THE FASTENER REQUIREMENTS OF FF-S-86 AND THIS STANDARD.

FINISH: ALLOY STEEL - CADMIUM PLATE IN ACCORDANCE WITH AMS-QQ-P-416, TYPE II, CLASS 2.
- BLACK OXIDE IN ACCORDANCE WITH MIL-DTL-13924, CLASS I.

CORROSION RESISTANT STEEL - CADMIUM PLATE IN ACCORDANCE WITH AMS-QQ-P-416, TYPE I, CLASS 2.
- SILVER FLASH IN ACCORDANCE WITH AMS2411.
- PASSIVATE IN ACCORDANCE WITH AMS2700, METHOD 1, TYPE 6 OR TYPE 7, CLASS 1.

REVISION
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NAS1352
SHEET 3

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EXAMPLE: NAS1352-02-8	=	.0860-56 UNRC-3A	SCREW, CAP, SOCKET HEAD, ALLOY STEEL, UNDRILLED HEAD, PLAIN, .500 INCH LONG, BLACK OXIDE FINISH.
NAS1352C04H12	=	.1120-40 UNRC-3A	SCREW, CAP, SOCKET HEAD, CORROSION-RESISTANT STEEL, DRILLED HEAD, PLAIN, .750 INCH LONG, PASSIVATED.
NAS1352-08LE16P	=	.1640-32 UNRC-3A	SCREW, CAP, SOCKET HEAD, ALLOY STEEL, SELF-LOCKING, OPTIONAL TYPE LOCKING ELEMENT, 1.000 INCH LONG, CADMIUM PLATE, UNDRILLED HEAD.
NAS1352C4LL24P	=	.2500-20 UNRC-3A	SCREW, CAP, SOCKET HEAD, CORROSION-RESISTANT STEEL, SELF-LOCKING, LONGITUDINAL STRIP LOCKING ELEMENT, 1.500 INCHES LONG, CADMIUM PLATE, UNDRILLED HEAD.
NAS1352N10LN32	=	.6250-11 UNRC-3A	SCREW, CAP, SOCKET HEAD, HEAT-RESISTANT STEEL, SELF-LOCKING, PELLET LOCKING ELEMENT, 2.000 INCHES LONG, PASSIVATED, UNDRILLED HEAD.
NAS1352N12LB36S	=	.7500-10 UNRC-3A	SCREW, CAP, SOCKET HEAD, HEAT-RESISTANT STEEL, SELF-LOCKING, PATCH TYPE LOCKING ELEMENT, 2.250 INCHES LONG, SILVER FLASH, UNDRILLED HEAD.
NAS1352N4LB16B	=	.2500-20 UNRC-3A	SCREW, CAP, SOCKET HEAD, HEAT-RESISTANT STEEL, SELF-LOCKING, PATCH TYPE LOCKING ELEMENT, 1.000 INCH LONG, BLACK OXIDE COATING, UNDRILLED HEAD.

NOTES:

- (1) LOCKING ELEMENT: EXCEPT AS NOTED HEREIN. THE LOCKING ELEMENT WHEN SPECIFIED SHALL BE IN ACCORDANCE WITH MIL-DTL-18240 AND SHALL BE FULLY ENGAGED WHEN USED.
- (2) IDENTIFICATION: MANUFACTURER TO IDENTIFY ALL MINIMUM PACKAGES BY PACKAGE MARKING OF APPLICABLE COMPLETE NAS STANDARD PART NO. IN ACCORDANCE WITH MIL-STD-130.
- (3) DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED DIMENSIONS AND TOLERANCES SHALL BE IN ACCORDANCE WITH FF-S-86, TYPE VI AND ASME B18.3.
- (4) REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON THE DATE OF INVITATION FOR BID.
- (5) THIS STANDARD TAKES PRECEDENCE OVER DOCUMENTS SPECIFIED HEREIN.
- (6) ADDITIONAL PART MARKING SHALL BE IN ACCORDANCE WITH FF-S-86.
- (7) UNLESS OTHERWISE SPECIFIED, PART INVENTORY MANUFACTURED TO PREVIOUS REVISIONS OF THE APPLICABLE DRAWING OR SPECIFICATION MAY BE PROCURED AND USED UNTIL STOCK IS DEPLETED.
- (8) REMOVE ALL BURRS AND SHARP EDGES.
- (9) DELETED (11)

PROCUREMENT SPECIFICATION: FF-S-86: UNLESS OTHERWISE SPECIFIED, CAP SCREWS FURNISHED UNDER THIS STANDARD SHALL BE SUBJECT TO IN-PROCESS CONTROL AND/OR END PRODUCT INSPECTION WHICH WILL INSURE MECHANICAL, METALLURGICAL, CHEMICAL AND COATING OR TREATMENT CHARACTERISTICS WHEN SAMPLED IN ACCORDANCE WITH ASQ Z1.4, INSPECTION LEVEL S-1, 1% AQL.

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REVISION 11
NAS1352 SHEET 5

