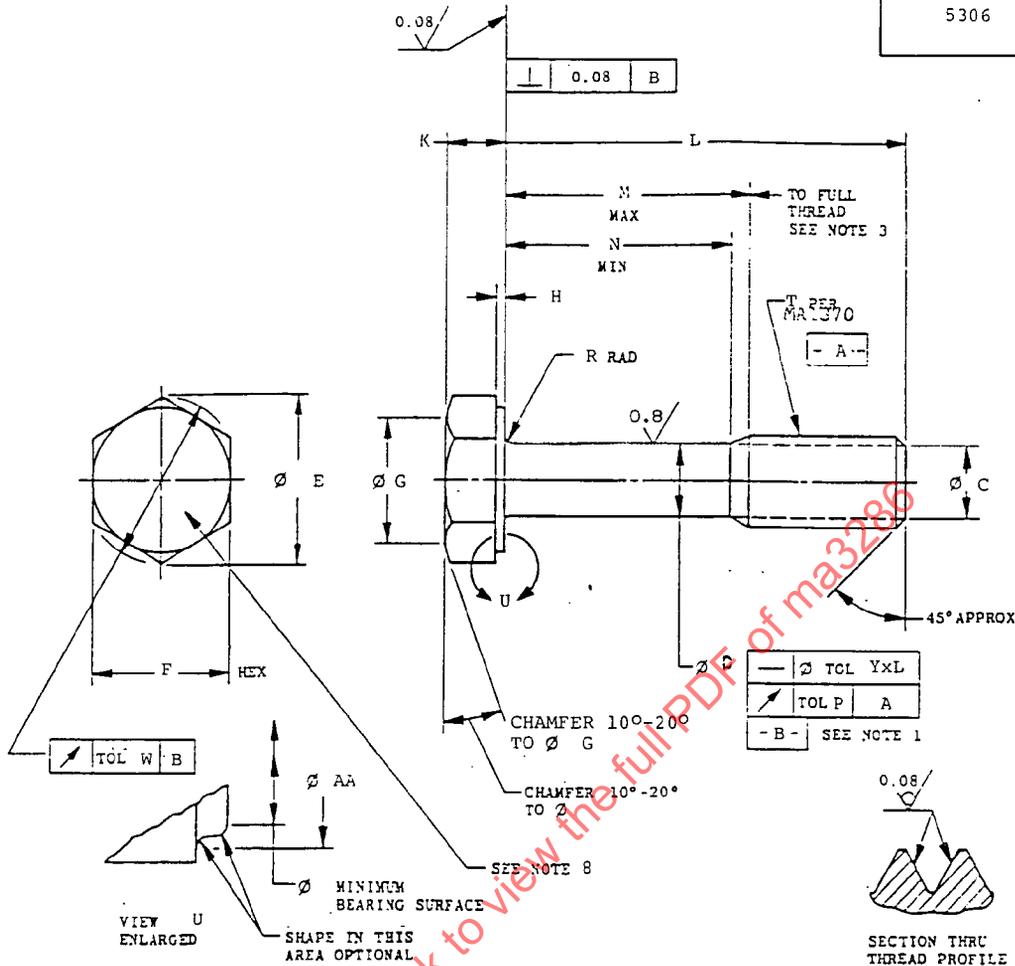


MA 3286

FEDERAL SUPPLY CLASS
5306

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- FOR PART NUMBERS WHERE DIMENSION N IS EQUAL TO OR LESS THAN ONE TIMES THE NOMINAL DIAMETER OF THE THREAD, THE THREAD PD SHALL REPLACE DATUM B.
- MATERIAL: HEAT AND CORROSION RESISTANT STEEL AMS 5731. (UNS S66286)
- PROCUREMENT SPECIFICATION: MA3374
- HARDNESS: 26-35 HRC OR EQUIVALENT.
- FLOUORESCENT PENETRANT INSPECTION: AMS 2645. ACCEPTANCE CRITERIA PER MA3374
- SURFACE TEXTURE: SYMBOLS PER ANSI Y14.36-1978; REQUIREMENTS PER ANSI/ASME B46.1-1985 UNLESS OTHERWISE SPECIFIED SURFACES TO BE 3.2 MICROMETRES Ra.
- PART NUMBER SHALL INCLUDE THE STANDARD NUMBER AND THE DASH NUMBER TO INDICATE DIAMETER AND LENGTH. EXAMPLE OF PART NUMBER:
MA3286-030014 = BOLT, MJ3x0.5 THREAD, 14 LONG
MA3286-080104 - BOLT, MJ8x1 THREAD, 104 LONG
- MARK PART NUMBER AND MANUFACTURER'S IDENTIFICATION PER AS 478 CLASS A. FOR MJ3 AND MJ4 MARK ONLY MA3286 AND MANUFACTURER'S IDENTIFICATION.
- BREAK EDGES 0.1-0.4, UNLESS OTHERWISE SPECIFIED.
- DIMENSIONING AND TOLERANCING: ANSI Y14.5M-1982. TOLERANCE GRADE PER ANSI B4.1-1973.
- ALL DIMENSIONS IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.
- DO NOT USE UNASSIGNED PART NUMBERS.

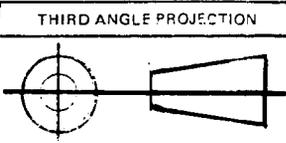
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METRIC AEROSPACE STANDARD

BOLT, MACHINE-HEX HEAD-PD SHANK-MJ
THREAD, AMS 5731, METRIC



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PART NUMBER SEE NOTE 7	NOM DIA REF	THREAD		C	K	E MIN	F	G MIN	
		T							
MA 3286-030XXX	3	MJ3x0.5-4h6h		1.8-2.3	3.1-3.4	7.6	6.85-7.00	h12	6.5
MA 3286-040XXX	4	MJ4x0.7-4h6h		2.6-3.1	3.6-3.9	8.7	7.85-8.00		7.5
MA 3286-050XXX	5	MJ5x0.8-4h6h		3.0-4.0	2.7-3.0	9.8	8.78-9.00	h13	8.4
MA 3286-060XXX	6	MJ6x1-4h6h		3.7-4.7	3.2-3.5	12.0	10.73-11.00		10.3
MA 3286-070XXX	7	MJ7x1-4h6h		4.7-5.7	3.7-4.0	13.2	11.73-12.00	h13	11.3
MA 3286-080XXX	8	MJ8x1-4h6h		5.7-6.7	4.2-4.5	15.5	13.73-14.00		13.3
MA 3286-100XXX	10	MJ10x1.25-4h6h		7.4-8.4	4.7-5.0	18.9	16.73-17.00	h13	16.3
MA 3286-120XXX	12	MJ12x1.25-4h6h		9.4-10.4	5.7-6.0	21.1	18.67-19.00		18.3
MA 3286-140XXX	14	MJ14x1.5-4h6h		11.1-12.1	6.7-7.0	24.5	21.67-22.00	h13	21.3
MA 3286-160XXX	16	MJ16x1.5-4h6h		13.1-14.1	7.7-8.0	26.8	23.67-24.00		23.3
MA 3286-180XXX	18	MJ18x1.5-4h6h		15.1-16.1	8.7-9.0	30.2	26.67-27.00	h13	26.3
MA 3286-200XXX	20	MJ20x1.5-4h6h		17.1-18.1	9.7-10.0	33.6	29.67-30.00		29.3

PART NUMBER SEE NOTE 7	NOM DIA REF	H	J MIN	D	P	R	W	Y	AA MAX
MA 3286-040XXX	4	0.2-0.5	7.4	3.42-3.68	0.12	0.2-0.4	0.20	0.0030	8.25
MA 3286-050XXX	5	0.2-0.5	8.3	4.35-4.61	0.12	0.3-0.5	0.25	0.0030	9.25
MA 3286-060XXX	6	0.2-0.5	10.2	5.22-5.48	0.12	0.5-0.7	0.30	0.0030	11.25
MA 3286-070XXX	7	0.2-0.5	11.2	6.22-6.48	0.15	0.5-0.7	0.35	0.0030	12.25
MA 3286-080XXX	8	0.3-0.6	13.2	7.22-7.48	0.15	0.5-0.7	0.40	0.0030	14.25
MA 3286-100XXX	10	0.3-0.6	16.0	9.06-9.32	0.15	0.6-0.8	0.50	0.0025	17.25
MA 3286-120XXX	12	0.3-0.6	18.0	11.06-11.32	0.18	0.6-0.9	0.60	0.0025	19.25
MA 3286-140XXX	14	0.3-0.6	21.0	12.90-13.16	0.18	0.8-1.1	0.70	0.0025	22.25
MA 3286-160XXX	16	0.3-0.6	23.0	14.90-15.16	0.18	0.8-1.1	0.75	0.0025	24.25
MA 3286-180XXX	18	0.3-0.6	26.0	16.90-17.16	0.18	1.0-1.3	0.75	0.0025	27.25
MA 3286-200XXX	20	0.3-0.6	29.0	18.90-19.16	0.21	1.0-1.3	0.75	0.0025	30.25

TABLE II

L LENGTH	MJ3x0.5-4h6h			MJ4x0.7-4h6h				
	DASH NO. SEE NOTE	M MAX	N MIN	APPROX MASS kg/100	DASH NO. SEE NOTE	M MAX	N MIN	APPROX MASS kg/100
3.7-4.3	030004	1.4	0.4	0.114				
5.7-6.3	030006	1.4	0.4	0.123	040006	1.8	0.4	0.194
7.7-8.3	030008	1.4	0.4	0.130	040008	1.8	0.4	0.209
9.7-10.3	030010	1.4	0.4	0.139	040010	1.8	0.4	0.224
11.7-12.3	030012	1.4	0.4	0.148	040012	1.8	0.4	0.239
13.7-14.3	030014	2.0	0.4	0.157	040014	1.8	0.4	0.254
15.7-16.3	030016	4.0	1.5	0.166	040016	2.0	0.4	0.269
17.7-18.3	030018	6.0	3.5	0.175	040018	4.0	1.1	0.284
19.7-20.3	030020	8.0	5.5	0.184	040020	6.0	3.1	0.299
21.7-22.3	030022	10.0	7.5	0.193	040022	8.0	5.1	0.314
23.7-24.3	030024	12.0	9.5	0.202	040024	10.0	7.1	0.329
25.7-26.3	030026	14.0	11.5	0.211	040026	12.0	9.1	0.344
27.7-28.3	030028	16.0	13.5	0.220	040028	14.0	11.1	0.359
29.7-30.3	030030	18.0	15.5	0.229	040030	16.0	13.1	0.374
31.7-32.3	030032	20.0	17.5	0.238	040032	18.0	15.1	0.389
33.7-34.3	030034	22.0	29.5	0.247	040034	20.0	17.1	0.404
35.7-36.3	030036	24.0	21.5	0.256	040036	22.0	19.1	0.419
37.7-38.3	030038	26.0	23.5	0.265	040038	24.0	21.1	0.434
39.7-40.3	030040	28.0	25.5	0.274	040040	26.0	23.1	0.449
41.7-42.3	030042	30.0	27.5	0.283	040042	28.0	25.1	0.464
43.7-44.3					040044	30.0	27.1	0.479
45.7-46.3					040046	32.0	29.1	0.494
47.7-48.3					040048	34.0	31.1	0.509
49.7-50.3					040050	36.0	33.1	0.524
51.7-52.3					040052	38.0	35.1	0.539
53.7-54.3					040054	40.0	37.1	0.554
55.7-56.3					040056	42.0	39.1	0.569

METRIC AEROSPACE STANDARD

BOLT, MACHINE-HEX HEAD-PD SHANK-MJ
THREAD, AMS 5731, METRIC

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TABLE II (CONTINUED)

L LENGTH	MJ5x0.8-4h6h				MJ6x1-4h6h			
	DASH NO. SEE NOTE	M MAX	N MIN	APPROX MASS kg/100	DASH NO. SEE NOTE	M MAX	N MIN	APPROX MASS kg/100
7.7-8.3	050008	2.1	0.5	0.266				
9.7-10.3	050010	2.1	0.5	0.290	060010	2.7	0.7	0.441
11.7-12.3	050012	2.1	0.5	0.314	060012	2.7	0.7	0.476
13.7-14.3	050014	3.1	0.5	0.338	060014	2.7	0.7	0.511
15.7-16.3	050016	2.1	0.5	0.362	060016	2.7	0.7	0.546
17.7-18.3	050018	2.1	0.5	0.386	060018	2.7	0.7	0.581
19.7-20.3	050020	4.0	0.9	0.410	060020	2.7	0.7	0.616
21.7-22.3	050022	6.0	2.9	0.434	060022	4.0	0.7	0.651
23.7-24.3	050024	8.0	4.9	0.458	060024	6.0	2.5	0.686
25.7-26.3	050026	10.0	6.9	0.482	060026	8.0	4.5	0.721
27.7-28.3	050028	12.0	8.9	0.506	060028	10.0	6.5	0.756
29.7-30.3	050030	14.0	10.9	0.530	060030	12.0	8.5	0.791
31.7-32.3	050032	16.0	12.9	0.554	060032	14.0	10.5	0.826
33.7-34.3	050034	18.0	14.9	0.478	060034	16.0	12.5	0.861
35.7-36.3	050036	20.0	16.9	0.602	060036	18.0	14.5	0.896
37.7-38.3	050038	22.0	18.9	0.626	060038	20.0	16.5	0.931
39.7-40.3	050040	24.0	20.9	0.650	060040	22.0	18.5	0.966
41.7-42.3	050042	26.0	22.9	0.674	060042	24.0	20.5	1.001
43.7-44.3	050044	28.0	24.9	0.698	060044	26.0	22.5	1.036
45.7-46.3	050046	30.0	26.9	0.722	060046	28.0	24.5	1.071
47.7-48.3	050048	32.0	28.9	0.746	060048	30.0	26.5	1.106
49.7-50.3	050050	34.0	30.9	0.770	060050	32.0	28.5	1.141
51.7-52.3	050052	36.0	32.9	0.794	060052	34.0	30.5	1.176
53.7-54.3	050054	38.0	34.9	0.818	060054	36.0	32.5	1.211
55.7-56.3	050056	40.0	36.9	0.842	060056	38.0	34.5	1.246
57.7-58.3	050058	42.0	38.9	0.866	060058	40.0	36.5	1.281
59.7-60.3	050060	44.0	40.9	0.890	060060	42.0	38.5	1.316
63.7-64.3	050064	48.0	44.9	0.938	060064	46.0	42.5	1.386
67.7-68.3	050068	52.0	48.9	0.986	060068	50.0	46.5	1.456
71.7-72.3					060072	54.0	50.5	1.526
75.7-76.3					060076	58.0	54.5	1.596
79.7-80.3					060080	62.0	58.5	1.666
83.7-84.3					060084	66.0	62.5	1.736

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THREAD, AMS 5731, METRIC

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TABLE II (CONTINUED)

L LENGTH	MJ7x1-4h6h				MJ8x1-4h6h			
	DASH NO. SEE NOTE	M MAX	N MIN	APPROX. MASS kg/100	DASH NO. SEE NOTE	M MAX	N MIN	APPROX MASS kg/100
9.7-10.3	070010	2.7	0.7	0.587	080010	2.7	0.7	0.854
11.7-12.3	070012	2.7	0.7	0.636	080012	2.7	0.7	0.920
13.7-14.3	070014	2.7	0.7	0.685	080014	2.7	0.7	0.986
15.7-16.3	070016	2.7	0.7	0.734	080016	2.7	0.7	1.052
17.7-18.3	070018	2.7	0.7	0.783	080018	2.7	0.7	1.118
19.7-20.3	070020	2.7	0.7	0.832	080020	2.7	0.7	1.184
21.7-22.3	070022	2.7	0.7	0.881	080022	2.7	0.7	1.250
23.7-24.3	070024	4.0	0.7	0.930	080024	2.7	0.7	1.316
25.7-26.3	070026	6.0	2.5	0.979	080026	4.0	0.7	1.382
27.7-28.3	070028	8.0	4.5	1.028	080028	6.0	2.5	1.448
29.7-30.3	070030	10.0	6.5	1.077	080030	8.0	4.5	1.514
31.7-32.3	070032	12.0	8.5	1.26	080032	10.0	6.5	1.580
33.7-34.3	070034	14.0	10.5	1.175	080034	12.0	8.5	1.646
35.7-36.3	070034	16.0	12.5	1.224	080036	14.0	10.5	1.712
37.7-38.3	070038	18.0	14.5	1.273	080038	16.0	12.5	1.718
39.7-40.3	070040	20.0	16.5	1.322	080040	18.0	14.5	1.844
41.7-42.3	070042	22.0	18.5	1.371	080042	20.0	16.5	1.910
43.7-44.3	070044	24.0	20.5	1.420	080044	22.0	18.5	1.976
45.7-46.3	070046	26.0	22.5	1.469	080046	24.0	20.5	2.042
47.7-48.3	070048	28.0	24.5	1.518	080048	26.0	22.5	2.108
49.7-50.3	070050	30.0	26.5	1.567	080050	28.0	24.5	2.174
51.7-52.3	070052	32.0	28.5	1.616	080052	30.0	26.5	2.240
53.7-54.3	070054	34.0	30.5	1.665	080054	32.0	28.5	2.306
55.7-56.3	070056	36.0	32.5	1.714	080056	34.0	30.5	2.372
57.7-58.3	070058	38.0	34.5	1.763	080058	36.0	32.5	2.438
59.7-60.3	070060	40.0	36.5	1.812	080060	38.0	34.5	2.504
63.7-64.3	070064	44.0	40.5	1.910	080064	42.0	38.5	2.636
67.7-68.3	070068	48.0	44.5	2.008	080068	46.0	42.5	2.768
71.7-72.3	070072	52.0	48.5	2.106	080072	50.0	46.5	2.900
75.7-76.3	070076	56.0	52.5	2.204	080076	54.0	50.5	3.032
79.7-80.3	070080	60.0	56.5	2.302	080080	58.0	54.5	3.164
83.7-84.3	070084	64.0	60.5	2.400	080084	62.0	58.5	3.296
87.7-88.3	07088	68.0	64.5	2.498	080088	66.0	62.5	3.428
91.7-92.3	070092	72.0	68.5	2.596	080092	70.0	66.5	3.560
95.7-96.3	070096	76.0	72.5	2.694	080096	74.0	70.5	3.692
99.7-100.3					080100	78.0	74.5	3.824
103.7-104.3					080104	82.0	78.5	3.956
107.7-108.3					080108	86.0	82.5	4.088
111.7-112.3					080112	90.0	86.5	4.220

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TABLE II (CONTINUED)

L LENGTH	MJ10x1.25-4h6h				MJ12x1.25-4h6h			
	DASH NO. SEE NOTE	M MAX	N MIN	APPROX MASS kg/100	DASH NO. SEE NOTE	M MAX	N MIN	APPROX MASS. kg/100
13.7-14.3	100014	3.3	0.8	1.585				
15.7-16.3	100016	3.3	0.8	1.688	120016	3.4	0.9	2.502
17.7-18.3	100018	3.3	0.8	1.791	120018	3.4	0.9	2.655
19.7-20.3	100020	3.3	0.8	1.894	120020	3.4	0.9	2.808
21.7-22.3	100022	3.3	0.8	1.997	120022	3.4	0.9	2.961
23.7-24.3	100024	3.3	0.8	2.100	120024	3.4	0.9	3.114
25.7-26.3	100026	3.3	0.8	2.203	120026	3.4	0.9	3.267
27.7-28.3	100028	3.3	0.8	2.306	120028	3.4	0.9	3.420
29.7-30.3	100030	4.0	0.8	2.409	120030	3.4	0.9	3.573
31.7-32.3	100032	6.0	2.0	2.512	120032	3.4	0.9	3.726
33.7-34.3	100034	8.0	4.0	2.615	120034	4.0	0.9	3.879
35.7-37.3	100036	10.0	6.0	2.718	120036	6.0	2.0	4.032
37.7-38.3	100038	12.0	8.0	2.821	120038	8.0	4.0	4.185
39.7-40.3	100040	14.0	10.0	2.924	120040	10.0	6.0	4.338
41.7-42.3	100042	16.0	12.0	3.027	120042	12.00	8.0	4.492
43.7-44.3	100044	18.0	14.0	3.130	120044	14.0	10.0	4.645
45.7-46.3	100046	20.0	16.0	3.233	120046	16.0	12.0	4.798
47.7-48.3	100048	22.0	18.0	3.336	120048	18.0	14.0	4.951
49.7-50.3	100050	24.0	20.0	3.439	120050	20.0	16.0	5.104
51.7-52.3	100052	26.0	22.0	3.542	120052	22.0	18.0	5.257
53.7-54.3	100054	28.0	24.0	3.645	120054	24.0	20.0	5.410
55.7-56.3	100056	30.0	26.0	3.748	120056	26.0	22.0	5.563
57.7-58.3	100058	32.0	28.0	3.851	120058	28.0	24.0	5.716
59.7-60.3	100060	34.0	30.0	3.954	120060	30.0	26.0	5.869
63.7-64.3	100064	38.0	34.0	4.160	120064	34.0	30.0	6.175
67.7-68.3	100068	42.0	38.0	4.366	120068	38.0	34.0	6.481
71.7-72.3	100072	46.0	42.0	4.572	120072	42.0	38.0	6.787
75.7-76.3	100076	50.0	46.0	4.778	120076	46.0	42.0	7.093
79.7-80.3	100080	54.0	46.0	4.984	120080	50.0	46.0	7.399
83.7-84.3	100084	58.0	54.0	5.190	120084	54.0	50.0	7.705
87.7-88.3	100088	62.0	58.0	5.396	120088	58.0	54.0	8.011
91.7-92.3	100092	66.0	62.0	5.602	120092	62.0	58.0	8.317
95.7-96.3	100096	70.0	66.0	5.808	120096	66.0	62.0	8.623
99.7-100.3	100100	74.0	70.0	6.014	120100	70.0	66.0	8.929
103.7-104.3	100104	78.0	74.0	6.220	120104	74.0	70.0	9.235
107.7-108.3	100108	82.0	78.0	6.426	120108	78.0	74.0	9.541
111.7-112.3	100112	86.0	82.0	6.632	120112	82.0	78.0	9.847
115.7-116.3	100115	90.0	86.0	6.838	120116	86.0	82.0	10.153
119.7-120.3	100120	94.0	90.0	7.044	120120	90.0	86.0	10.459
123.7-124.3	100124	98.0	94.0	7.250	120124	94.0	90.0	10.765
127.7-128.3	100128	102.0	98.0	7.456	120128	98.0	94.0	11.071
131.7-132.3	100132	106.0	102.0	7.662	120132	102.0	98.0	11.377
135.7-136.3	100136	110.0	106.0	7.868	120136	106.0	102.0	11.683
139.7-140.3	100140	114.0	110.0	8.074	120140	110.0	106.0	11.989
143.7-144.3					120144	114.0	110.0	12.295
147.7-148.3					120148	118.0	114.0	12.601
151.7-152.3					120152	122.0	118.0	12.907
155.7-156.3					120156	126.0	122.0	13.213
159.7-160.3					120160	130.0	126.0	13.519
163.7-164.3					120164	134.0	130.0	13.825
167.7-168.3					120168	138.0	134.0	14.131

ISSUED 7-1-87 REVISED

METRIC AEROSPACE STANDARD

BOLT, MACHINE-HEX HEAD-PD SHANK-MJ
THREAD, AMS 5731, METRIC

MA 3286

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