

D-17-23

**NOTICE OF
ADOPTION**ADOPTION NOTICE 1
25 August 1988 for
MA3339-87
August 1987

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Society of Automotive Engineers, Inc.
400 Commonwealth Drive
Warrendale, PA 15096-0001

Title of Document: BOLT, MACHINE-SPLINED, EXTENDED WASHER, PD SHANK, LONG
THREAD, AMS 6322, CADMIUM PLATED, METRIC.

Date of Specific Issue Adopted: August 1987

Releasing Non-Government Standards Body: Society of Automotive Engineers, Inc.

Custodians:

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(Project 5306-1241)

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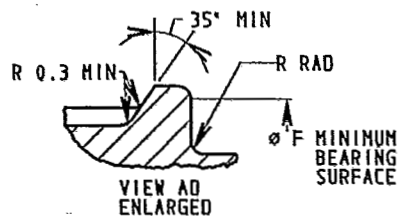
FSC 5306

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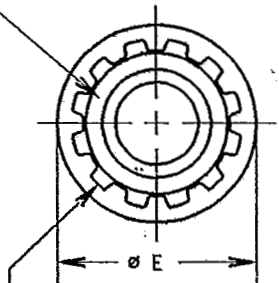
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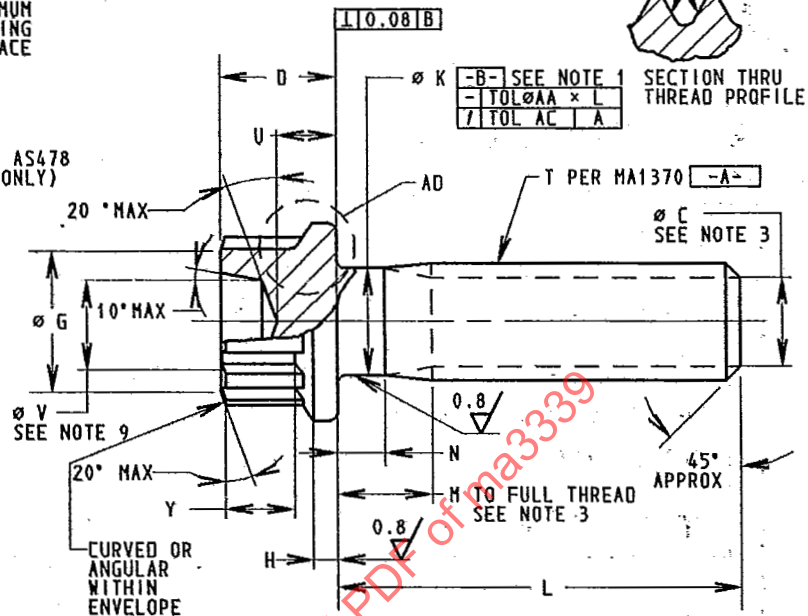


MARK PART NUMBER AND MANUFACTURER'S IDENTIFICATION PER AS478 CLASS A (FOR MJ4 MARK MA3339 ONLY)



SPLINE CONFIGURATION PER MA1549-XX FOR DISTANCE Y MIN SEE NOTE 10.

1/TOL AB/B



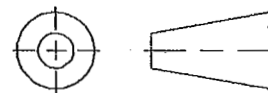
1. FOR PART NUMBERS WHERE DIMENSION N IS EQUAL OR LESS ONE DIAMETER TO THE HEAD, THE THREAD PD SHALL REPLACE DATUM B.
2. MATERIAL: LOW-ALLOY STEEL AMS6322. (UNS G87400)
3. PROCUREMENT SPECIFICATION: MA3376
4. HARDNESS: 26-32 HRC OR EQUIVALENT.
5. FINISH: CADMIUM PLATE PER AMS2400. DIMENSIONS ARE AFTER PLATING.
6. MAGNETIC PARTICLE INSPECTION: AMS2640
7. SURFACE TEXTURE: SYMBOLS PER ANSI Y14.36-1978; REQUIREMENTS PER ANSI B46.1-1985 UNLESS OTHERWISE SPECIFIED SURFACES TO BE 3.2 MICROMETRES Ra.
8. PART NUMBER SHALL INCLUDE THE STANDARD NUMBER AND THE DASH NUMBER TO INDICATE DIAMETER AND LENGTH. EXAMPLE OF PART NUMBER:

MA3339-040024 = BOLT, MJ4X0.7 THREAD, 24 LONG.

MA3339-120114 = BOLT, MJ12X1.25 THREAD, 114 LONG.

9. SHAPE OF BOTTOM OF HOLE MAY BE FLAT OR CURVED WITHIN DIMENSIONS SHOWN, NO HOLE IS REQUIRED ON DIAMETER 4.
10. WRENCHING CONFIGURATION SHALL BE IN ACCORDANCE WITH MA1549. FOR THE APPLICABLE DASH NUMBER SEE TABLE 1.
11. BREAK EDGES 0.1-0.4, UNLESS OTHERWISE SPECIFIED.
12. DIMENSIONING AND TOLERANCING: ANSI Y14.5M-1982. TOLERANCE GRADES PER ANSI B4.2-1978.
13. ALL DIMENSIONS IN SI MILLIMETRES UNLESS OTHERWISE SPECIFIED.
14. DO NOT USE UNASSIGNED PART NUMBERS.
AS, MA, & AMS ARE SAE PUBLICATIONS.
ANSI IS AMERICAN NATIONAL STANDARDS INSTITUTE PUBLICATION.

THIRD ANGLE PROJECTION



PREPARED BY SAE COMMITTEE E-25, GENERAL STANDARDS FOR AEROSPACE PROPULSION SYSTEMS

SAE The Engineering Society
For Advancing Mobility
Land Sea Air and Space

400 Commonwealth Drive
Warrendale, PA 15096

METRIC AEROSPACE STANDARD

BOLT, MACHINE-SPLINE EXTENDED
WASHER, PD SHANK, LONG THREAD,
AMS6322, CADMIUM PLATED, METRIC

MA3339

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FEDERAL SUPPLY CLASS

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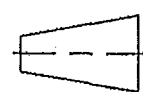
TABLE I

PART NUMBER SEE NOTE 8	NOM DIA REF	THREAD T	C	D h15	E MAX	F MIN	G MIN	H MIN
MA3339-040XXX	4	MJ4×0.7-4h6h	2.6-3.1	5.02-5.50	8.3	7.5	6	0.8
MA3339-050XXX	5	MJ5×0.8-4h6h	3.0-4.0	5.92-6.50	9.1	8.3	7	1.0
MA3339-060XXX	6	MJ6×1-4h6h	3.7-4.7	6.92-7.50	10.6	9.8	8	1.2
MA3339-070XXX	7	MJ7×1-4h6h	4.7-5.7	7.62-8.20	12.1	11.3	9	1.4
MA3339-080XXX	8	MJ8×1-4h6h	5.7-6.7	8.02-8.60	13.6	12.8	10	1.6
MA3339-100XXX	10	MJ10×1.25-4h6h	7.4-8.4	9.40-10.10	16.7	15.7	12	2.0
MA3339-120XXX	12	MJ12×1.25-4h6h	9.4-10.4	10.70-11.40	19.9	18.8	14	2.4

TABLE I (CONTD.)

NOM DIA REF	K	R	U	V	Y MIN	AA	AB	AC	WRENCHING CONFIGURATION DASH NO. SEE NOTE 10
4	3.42-3.68	0.2-0.4	--	--	2.5	0.0030	0.10	0.12	06
5	4.35-4.61	0.3-0.5	2.5-2.9	3.2-3.7	2.8	0.0030	0.13	0.12	07
6	5.22-5.48	0.5-0.7	2.8-3.2	4.1-4.6	3.5	0.0030	0.15	0.12	08
7	6.22-6.48	0.5-0.7	3.3-3.7	4.9-5.4	3.8	0.0030	0.18	0.15	09
8	7.22-7.48	0.5-0.7	3.7-4.1	5.2-5.7	3.9	0.0030	0.20	0.15	10
10	9.06-9.32	0.6-0.8	4.7-5.1	6.7-7.2	4.2	0.0025	0.25	0.15	12
12	11.06-11.32	0.6-0.9	5.6-6.0	8.0-8.5	4.5	0.0025	0.30	0.18	14

THIRD ANGLE PROJECTION



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METRIC AEROSPACE STANDARD

BOLT, MACHINE-SPLINE EXTENDED
WASHER, PD SHANK, LONG THREAD,
AMS6322, CADMIUM PLATED, METRIC

MA3339

SHEET 2 OF 6

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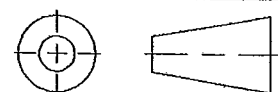
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TABLE II

L LENGTH	MJ4×0.7-4h6h				MJ5×0.8-4h6h			
	DASH NO. SEE NOTE 8	M MAX	N MIN	APPROX. MASS kg/100	DASH NO. SEE NOTE 8	M MAX	N MIN	APPROX. MASS kg/100
5.7-6.3	040006	1.8	0.4	0.237	--	--	--	--
7.7-8.3	040008	1.8	0.4	0.253	050008	2.1	0.5	0.353
9.7-10.3	040010	1.8	0.4	0.269	050010	2.1	0.5	0.379
11.7-12.3	040012	1.8	0.4	0.285	050012	2.1	0.5	0.405
13.7-14.3	040014	1.8	0.4	0.301	050014	2.1	0.5	0.430
15.7-16.3	040016	2.0	0.4	0.317	050016	2.1	0.5	0.456
17.7-18.3	040018	4.0	1.1	0.333	050018	2.1	0.5	0.481
19.7-20.3	040020	6.0	3.1	0.349	050020	4.0	0.9	0.507
21.7-22.3	040022	8.0	5.1	0.365	050022	6.0	2.9	0.532
23.7-24.3	040024	10.0	7.1	0.381	050024	8.0	4.9	0.558
25.7-26.3	040026	12.0	9.1	0.397	050026	10.0	6.9	0.583
27.7-28.3	040028	14.0	11.1	0.413	050028	12.0	8.9	0.609
29.7-30.3	040030	16.0	13.1	0.429	050030	14.0	10.9	0.635
31.7-32.3	040032	18.0	15.1	0.445	050032	16.0	12.9	0.660
33.7-34.3	040034	20.0	17.1	0.461	050034	18.0	14.9	0.686
35.7-36.3	040036	22.0	19.1	0.477	050036	20.0	16.9	0.711
37.7-38.3	040038	24.0	21.1	0.493	050038	22.0	18.9	0.737
39.7-40.3	040040	26.0	23.1	0.509	050040	24.0	20.9	0.762
41.7-42.3	040042	28.0	25.1	0.525	050042	26.0	22.9	0.788
43.7-44.3	040044	30.0	27.1	0.541	050044	28.0	24.9	0.813
45.7-46.3	040046	32.0	29.1	0.557	050046	30.0	26.9	0.839
47.7-48.3	040048	34.0	31.1	0.573	050048	32.0	28.9	0.864
49.7-50.3	040050	36.0	33.1	0.589	050050	34.0	30.9	0.890
51.7-52.3	040052	38.0	35.1	0.605	050052	36.0	32.9	0.916
53.7-54.3	040054	40.0	37.1	0.621	050054	38.0	34.9	0.941
55.7-56.3	040056	42.0	39.1	0.637	050056	40.0	36.9	0.967
57.7-58.3	--	--	--	--	050058	42.0	38.9	0.992
59.7-60.3	--	--	--	--	050060	44.0	40.9	1.018
63.7-64.3	--	--	--	--	050064	48.0	44.9	1.069
67.7-68.3	--	--	--	--	050068	52.0	48.9	1.120

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METRIC AEROSPACE STANDARD

BOLT, MACHINE-SPLINE EXTENDED
 WASHER, PD SHANK, LONG THREAD,
 AMS6322, CADMIUM PLATED, METRIC

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SHEET 3 OF 6

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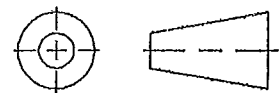
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TABLE II (CONTD.)

L LENGTH	MJ6×1-4h6h				MJ7×1-4h6h			
	DASH NO. SEE NOTE 8	M MAX	N MIN	APPROX. HASS kg/100	DASH NO. SEE NOTE 8	M MAX	N MIN	APPROX. HASS kg/100
9.7-10.3	060010	2.7	0.7	0.557	070010	2.7	0.7	0.772
11.7-12.3	060012	2.7	0.7	0.593	070012	2.7	0.7	0.823
13.7-14.3	060014	2.7	0.7	0.630	070014	2.7	0.7	0.875
15.7-16.3	060016	2.7	0.7	0.666	070016	2.7	0.7	0.926
17.7-18.3	060018	2.7	0.7	0.703	070018	2.7	0.7	0.978
19.7-20.3	060020	2.7	0.7	0.739	070020	2.7	0.7	1.029
21.7-22.3	060022	4.0	0.7	0.776	070022	2.7	0.7	1.080
23.7-24.3	060024	6.0	2.5	0.812	070024	4.0	0.7	1.132
25.7-26.3	060026	8.0	4.5	0.849	070026	6.0	2.5	1.183
27.7-28.3	060028	10.0	6.5	0.885	070028	8.0	4.5	1.235
29.7-30.3	060030	12.0	8.5	0.921	070030	10.0	6.5	1.286
31.7-32.3	060032	14.0	10.5	0.958	070032	12.0	8.5	1.338
33.7-34.3	060034	16.0	12.5	0.994	070034	14.0	10.5	1.389
35.7-36.3	060036	18.0	14.5	1.031	070036	16.0	12.5	1.441
37.7-38.3	060038	20.0	16.5	1.067	070038	18.0	14.5	1.492
39.7-40.3	060040	22.0	18.5	1.104	070040	20.0	16.5	1.544
41.7-42.3	060042	24.0	20.5	1.140	070042	22.0	18.5	1.595
43.7-44.3	060044	26.0	22.5	1.177	070044	24.0	20.5	1.646
45.7-46.3	060046	28.0	24.5	1.213	070046	26.0	22.5	1.689
47.7-48.3	060048	30.0	26.5	1.250	070048	28.0	24.5	1.749
49.7-50.3	060050	32.0	28.5	1.286	070050	30.0	26.5	1.801
51.7-52.3	060052	34.0	30.5	1.322	070052	32.0	28.5	1.852
53.7-54.3	060054	36.0	32.5	1.359	070054	34.0	30.5	1.904
55.7-56.3	060056	38.0	34.5	1.395	070056	36.0	32.5	1.955
57.7-58.3	060058	40.0	36.5	1.432	070058	38.0	34.5	2.007
59.7-60.3	060060	42.0	38.5	1.468	070060	40.0	36.5	2.058
63.7-64.3	060064	46.0	42.5	1.541	070064	44.0	40.5	2.161
67.7-68.3	060068	50.0	46.5	1.614	070068	48.0	44.5	2.264
71.7-72.3	060072	54.0	50.5	1.687	070072	52.0	48.5	2.367
75.7-76.3	060076	58.0	54.5	1.760	070076	56.0	52.5	2.470
79.7-80.3	060080	62.0	58.5	1.833	070080	60.0	56.5	2.573
83.7-84.3	060084	66.0	62.5	1.906	070084	64.0	60.5	2.676
87.7-88.3	--	--	--	--	070088	68.0	64.5	2.779
91.7-92.3	--	--	--	--	070092	72.0	68.5	2.882
95.7-96.3	--	--	--	--	070096	76.0	72.5	2.985

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