

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be revised, reaffirmed, stabilized, or cancelled. SAE invites your written comments and suggestions.

REV.
A

MA4187™

RATIONALE

FEDERAL SUPPLY CLASS
5305

DELETE RADII AT TRANSITION FROM WRENCHING FEATURE TO BASE FLANGE, ADD AS3062 FOR INCOMPLETE THREADS, FIGURE 1 RE-DRAWN WITH EDITORIAL UPDATES, UPDATE REFERENCES, ADD NEW NOTE FOR DISPOSITION OF EXISTING INVENTORY, GENERAL EDITORIAL REVISIONS THROUGHOUT.

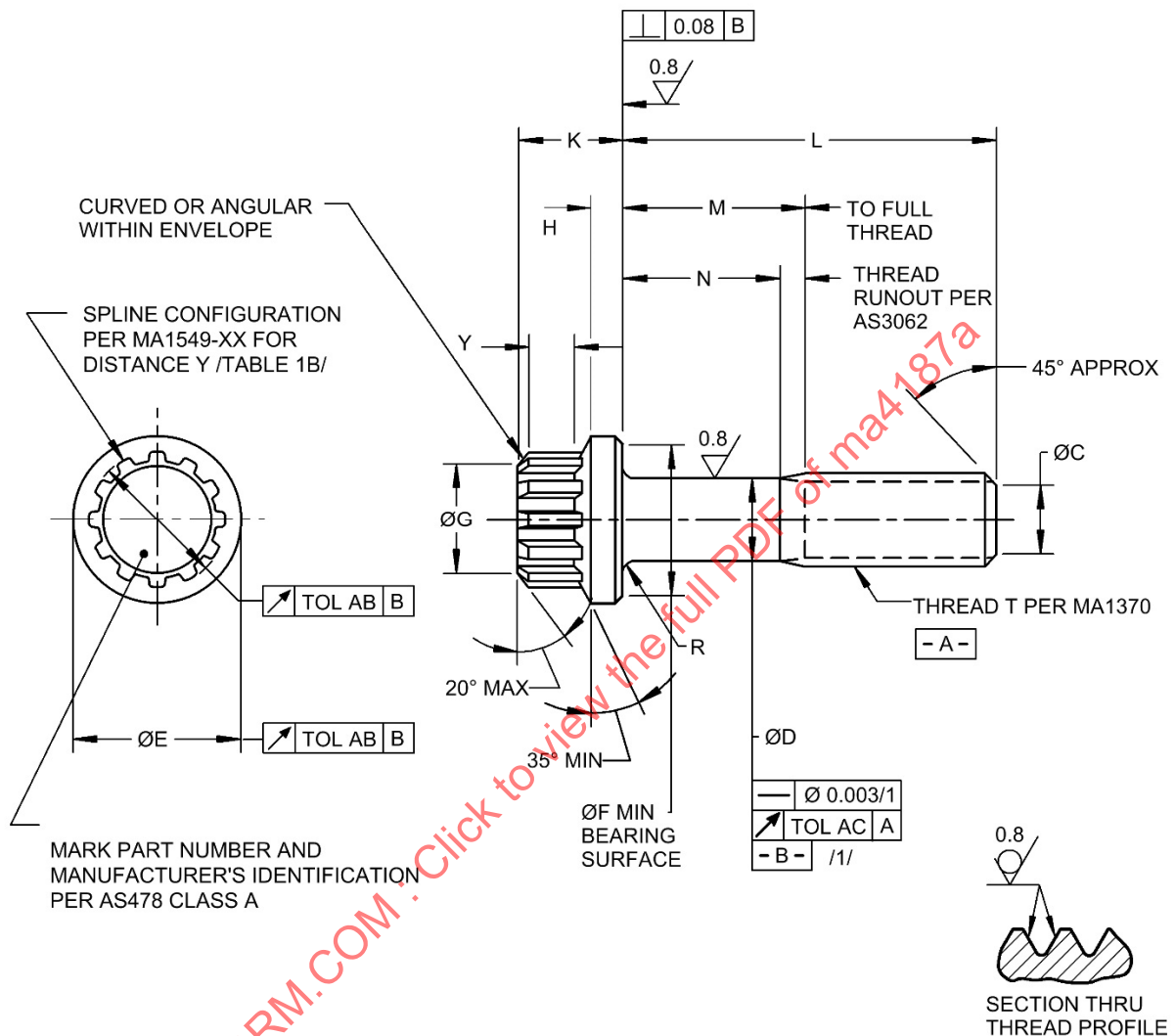
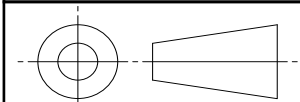


FIGURE 1 - BOLT

For more information on this standard, visit
<https://www.sae.org/standards/content/MA4187A/>

THIRD ANGLE PROJECTION



CUSTODIAN: E-25



METRIC AEROSPACE STANDARD

BOLT, MACHINE, SPLINE DRIVE,
SPECIAL EXTENDED WASHER, REDUCED HEAD,
PD SHANK, UNS N07718, METRIC

MA4187™
SHEET 1 OF 5

REV.
A

Copyright © 2020 SAE International
All rights reserved. No part of this publication may be reproduced, stored in a retrieval system or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of SAE.

TO PLACE A DOCUMENT ORDER: Tel: 877-606-7323 (inside USA and Canada)
Fax: 724-776-0790

Tel: +1 724-776-4970 (outside USA)
Email: CustomerService@sae.org

SAE WEB ADDRESS: <http://www.sae.org>

ISSUED 1992-01 REAFFIRMED 2015-05 REVISED 2020-12

TABLE 1A - PART NUMBERS, NOM DIA, THREAD T, AND DIMENSIONS C, D, E, F, G, H, AND K

PART NUMBER /6/	NOM DIA	THREAD T	ØC	ØD	ØE MAX	F MIN	ØG MIN	H MIN	K
MA4187-0500XX	5	MJ5 x 0.8-4h6h	3.0-4.0	4.35-4.61	9.1	8.3	6.0	1.0	5.02-5.50
MA4187-0600XX	6	MJ6 x 1-4h6h	3.7-4.7	5.22-5.48	10.6	9.8	7.0	1.2	5.90-6.50

TABLE 1B - PART NUMBERS AND DIMENSIONS R, Y, AB, AC, AND WRENCHING DASH NO.

PART NUMBER /6/	R	Y MIN	AB TOL	AC TOL	WRENCH CONFIGURATION DASH NO.
MA4187-0500XX	0.3-0.5	2.3	0.10	0.12	06
MA4187-0600XX	0.5-0.7	3.0	0.13	0.12	07

SAENORM.COM : Click to view the full PDF of ma4187a

TABLE 2 - DASH NO., DIMENSIONS L, M, N, AND APPROX MASS

SIZE	DASH NO. /6/	L	M MAX	N MIN	APPROX MASS KG/100
MJ5 x 0.8-4h6h	050008	7.7- 8.3	2.1	0.5	0.2570
	050010	9.7-10.3	2.1	0.5	0.2830
	050012	11.7-12.3	2.1	0.5	0.3080
	050014	13.7-14.3	2.1	0.5	0.3340
	050016	15.7-16.3	2.1	0.5	0.3590
	050018	17.7-18.3	2.1	0.5	0.3850
	050020	19.7-20.3	4.0	0.9	0.4100
	050022	21.7-22.3	6.0	2.9	0.4360
	050024	23.7-24.3	8.0	4.9	0.4610
	050026	25.7-26.3	10.0	6.9	0.4870
	050028	27.7-28.3	12.0	8.9	0.5120
	050030	29.7-30.3	14.0	10.9	0.5380
	050032	31.7-32.3	16.0	12.9	0.5630
	050034	33.7-34.3	18.0	14.9	0.5890
	050036	35.7-36.3	20.0	16.9	0.6140
	050038	37.7-38.3	22.0	18.9	0.6400
	050040	39.7-40.3	24.0	20.9	0.6650
	050042	41.7-42.3	26.0	22.9	0.6910
	050044	43.7-44.3	28.0	24.9	0.7160
	050046	45.7-46.3	30.0	26.9	0.7420
	050048	47.7-48.3	32.0	28.9	0.7670
	050050	49.7-50.3	34.0	30.9	0.7930
	050052	51.7-52.3	36.0	32.9	0.8180
	050054	53.7-54.3	38.0	34.9	0.8440
	050056	55.7-56.3	40.0	36.9	0.8690
	050058	57.7-58.3	42.0	38.9	0.8950
	050060	59.7-60.3	44.0	40.9	0.9200
	050064	63.7-64.3	48.0	44.9	0.9710
	050068	67.7-68.3	52.0	48.9	1.0220



METRIC AEROSPACE STANDARD

BOLT, MACHINE, SPLINE DRIVE,
SPECIAL EXTENDED WASHER, REDUCED HEAD,
PD SHANK, UNS N07718, METRIC

MA4187™
SHEET 3 OF 5

**REV.
A**

TABLE 2 - DASH NO., DIMENSIONS L, M, N, AND APPROX MASS (CONTINUED)

SIZE	DASH NO. /6/	L	M MAX	N MIN	APPROX MASS KG/100
MJ6 x 1-4h6h	060010	9.7-10.3	2.7	0.7	0.4661
	060012	11.7-12.3	2.7	0.7	0.5021
	060014	13.7-14.3	2.7	0.7	0.5381
	060016	15.7-16.3	2.7	0.7	0.5751
	060018	17.7-18.3	2.7	0.7	0.6121
	060020	19.7-20.3	2.7	0.7	0.6481
	060022	21.7-22.3	4.0	0.7	0.6851
	060024	23.7-24.3	6.0	2.5	0.7211
	060026	25.7-26.3	8.0	4.5	0.7571
	060028	27.7-28.3	10.0	6.5	0.7931
	060030	29.7-30.3	12.0	8.5	0.8291
	060032	31.7-32.3	14.0	10.5	0.8651
	060034	33.7-34.3	16.0	12.5	0.9011
	060036	35.7-36.3	18.0	14.5	0.9371
	060038	37.7-38.3	20.0	16.5	0.9731
	060040	39.7-40.3	22.0	18.5	1.0091
	060042	41.7-42.3	24.0	20.5	1.0451
	060044	43.7-44.3	26.0	22.5	1.0811
	060046	45.7-46.3	28.0	24.5	1.1171
	060048	47.7-48.3	30.0	26.5	1.1531
	060050	49.7-50.3	32.0	28.5	1.1891
	060052	51.7-52.3	34.0	30.5	1.2251
	060054	53.7-54.3	36.0	32.5	1.2611
	060056	55.7-56.3	38.0	34.5	1.2971
	060058	57.7-58.3	40.0	36.5	1.3331
	060060	59.7-60.3	42.0	38.5	1.3691
	060064	63.7-64.3	46.0	42.5	1.4411
	060068	67.7-68.3	50.0	46.6	1.5131
	060072	71.7-72.3	54.0	50.5	1.5851
	060076	75.7-76.3	58.0	54.5	1.6571
	060080	79.7-80.3	62.0	58.5	1.7241
	060084	83.7-84.3	66.0	62.5	1.8011



METRIC AEROSPACE STANDARD

BOLT, MACHINE, SPLINE DRIVE,
SPECIAL EXTENDED WASHER, REDUCED HEAD,
PD SHANK, UNS N07718, METRIC

MA4187™
SHEET 4 OF 5

**REV.
A**