

INCH-POUND

MS9090D
 4 AUGUST 2011
 SUPERSEDING
 MS9090C
 12 JUNE 1987

DETAIL SPECIFICATION SHEET

Reactivated after 4 August 2011 and may be used for
 new and existing designs and acquisitions.

BOLT MACHINE, DRILLED 12 POINT HEAD, STEEL, .3125-24 UNF-3A

This specification sheet is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification sheet and procurement specification AMS 7452.

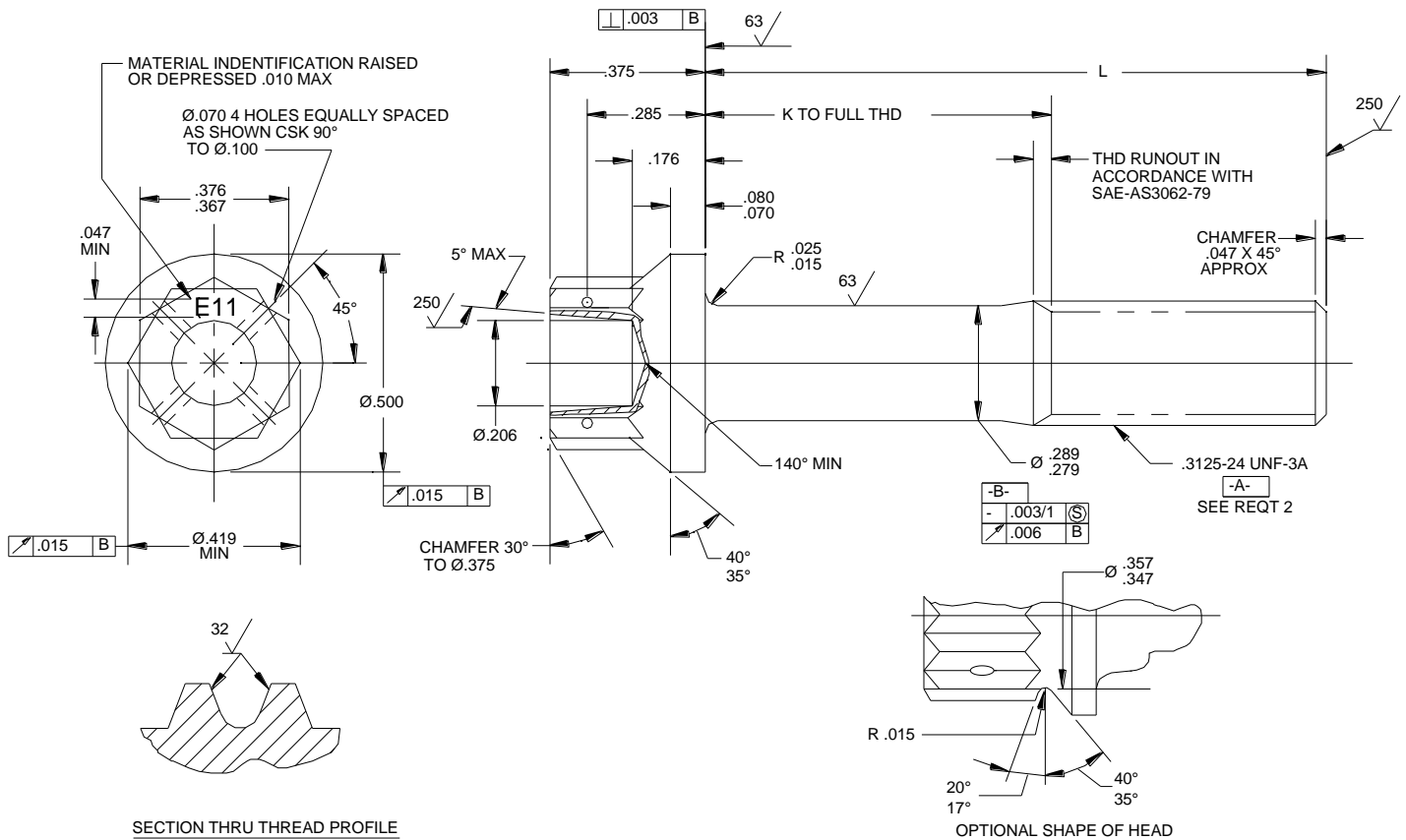


FIGURE 1 - BOLT

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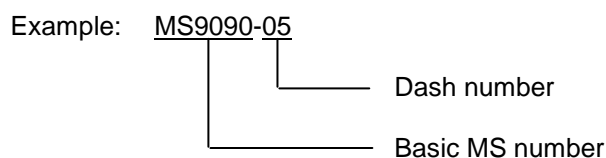
TABLE I - Dash numbers and dimensions

DASH NUMBER	L	K +.000 -.060	APPROX WEIGHT LBS/100	DASH NUMBER	L	K +.000 -.060	APPROX WEIGHT LBS/100	DASH NUMBER	L	K +.000 -.060	APPROX WEIGHT LBS/100
-05	.562	1/	2.21	-23	1.688	.812	4.22	-41	3.875	3.000	8.17
-06	.625	1/	2.28	-24	1.750	.875	4.33	-42	4.000	3.125	8.40
-07	.688	1/	2.39	-25	1.875	1.000	4.55	-43	4.125	3.250	8.63
-08	.750	1/	2.51	-26	2.000	1.125	4.77	-44	4.250	3.375	8.86
-09	.812	1/	2.62	-27	2.125	1.250	5.00	-45	4.375	3.500	9.08
-10	.875	1/	2.73	-28	2.250	1.375	5.23	-46	4.500	3.625	9.30
-11	.938	1/	2.85	-29	2.375	1.500	5.45	-47	4.625	3.750	9.52
-12	1.000	.125	2.96	-30	2.500	1.625	5.67	-48	4.750	3.875	9.74
-13	1.062	.188	3.07	-31	2.625	1.750	5.90	-49	4.875	4.000	9.95
-14	1.125	.250	3.19	-32	2.750	1.875	6.13	-50	5.000	4.125	10.17
-15	1.188	.312	3.30	-33	2.875	2.000	6.36	-51	5.125	4.250	10.40
-16	1.250	.375	3.41	-34	3.000	2.125	6.58	-52	5.250	4.375	10.63
-17	1.312	.438	3.52	-35	3.125	2.250	6.80	-53	5.375	4.500	10.86
-18	1.375	.500	3.64	-36	3.250	2.375	7.03	-54	5.500	4.625	11.10
-19	1.438	.562	3.75	-37	3.375	2.500	7.27	-55	5.625	4.750	11.33
-20	1.500	.625	3.87	-38	3.500	2.625	7.50	-56	5.750	4.875	11.56
-21	1.562	.688	3.98	-39	3.625	2.750	7.73	-57	5.875	5.000	11.78
-22	1.625	.750	4.10	-40	3.750	2.875	7.95	-58	6.000	5.125	12.00

1/ Thread to head. Maximum two incomplete threads.

Requirements:

1. **Material:** Steel in accordance with SAE-AMS 6322-80.
2. **Threads:** Threads in accordance with MIL-S-7742. Incomplete threads not to enter fillet.
3. **Finish:** Cadmium plate in accordance with SAE-AMS 2400-80. Dimensions specified are after plating.
4. **Hardness:** 26-32 HRC.
5. **Dimensioning and tolerancing:** Dimensioning and tolerancing shall be in accordance with ASME Y14.5M.
6. **Wrenching configuration:** Wrenching configuration in accordance with SAE-AS870-74.
7. **Surface texture:** Surface texture, unless otherwise specified, shall be 125 microinches, except upset head, in accordance with ASME B46.1.
8. **Magnetic particle inspection:** Magnetic particle inspection shall be in accordance ASTM-E1444.
9. **Tolerance:** Unless otherwise specified, tolerances shall be for linear dimensions $\pm .010$, angular dimensions $\pm 5^\circ$.
10. **Edges:** Break sharp edges .003 - .015, unless otherwise specified.
11. **Part number:** The part number shall consist of the basic MS number followed by a dash number from Table I.



MS9090-05 indicates: Bolt, Machine, Steel Drilled 12 Point Head;
.3125-24 UNF-3A; Length .562.

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Notes:

1. All dimensions are in inches.
2. Do not use unassigned part numbers.
3. In the event of a conflict between the text of this standard and the references cited herein, the text of this standard shall take precedence.
4. Referenced Government (or nongovernment) documents of the issue listed in that issue of the department of defense index of specifications and standards (DoDISS) specified in the solicitation form a part of this standard to the extent specified herein.
5. This standard was developed cooperatively with the SAE aerospace propulsion division.
6. AS and AMS are SAE publications.
7. Subject term (key word) listing.

Bolt, Machine, Steel, Drilled 12 Point Head, Cadmium Plate
8. inactive for new design after 24 January 2000.
9. Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of changes.

Custodians:
Navy - AS

Preparing activity:
DLA – IS

(Project 5306-2008-006)

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <https://assist.daps.dla.mil>