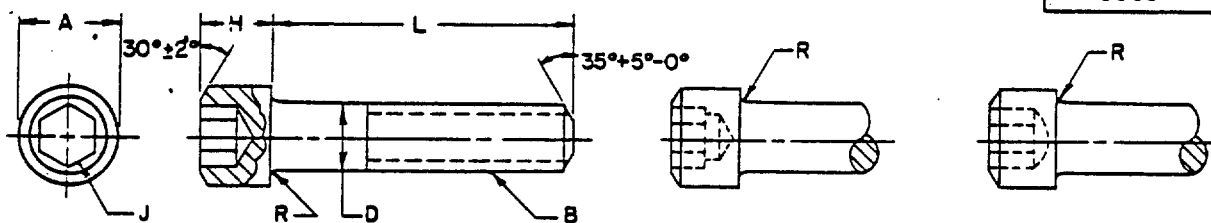


FED. SUP CLASS
5305

| NOMINAL SIZE | | #4 (.112) | #6 (.138) | #8 (.164) | #10 (.190) | 1/4 | |
|---------------------|---------------|-------------|----------------|----------------|----------------|----------------|----------------|
| B. THREADS PER INCH | | 40 UNC-3A | 32 UNC-3A | 32 UNC-3A | 24 UNC-3A | 20 UNC-3A | |
| D | BODY DIAMETER | MAX MIN | .1120 .1096 | .1380 .1353 | .1640 .1613 | .1900 .1867 | .2500 .2464 |
| A | HEAD DIAMETER | MAX MIN | .183 .178 | .226 .221 | .270 .265 | 5/16 .306 | 3/8 .367 |
| H | HEAD HEIGHT | MAX MIN | .112 .109 | .138 .134 | .164 .160 | .190 .185 | 1/4 .244 |
| J | SOCKET SIZE | NOM | 5/64 | 3/32 | 1/8 | 5/32 | 3/16 |
| R | RADIUS | MAX MIN | .019 .005 | .019 .005 | .015 .010 | .015 .010 | .015 .010 |
| L LENGTH | | DASH NO. | DASH NO. | DASH NO. | DASH NO. | DASH NO. | |
| 1/4 | | 1 | 6 | 13 | | | |
| 3/8 | | 2 | 7 | 14 | 22 | 32 | |
| 1/2 | | 3 | 8 | 15 | 23 | 33 | |
| 5/8 | | 4 | 9 | 16 | 24 | 34 | |
| 3/4 | | 5 | 10 | 17 | 25 | 35 | |
| 7/8 | | | 11 | 18 | 26 | 36 | |
| 1 | | | 12 | 19 | 27 | 37 | |
| 1-1/4 | | | | 20 | 28 | 38 | |
| 1-1/2 | | | | 21 | 29 | 39 | |
| 1-3/4 | | | | | 30 | 40 | |
| 2 | | | | | 31 | 41 | |
| 2-1/4 | | | | | | 42 | |
| 2-1/2 | | | | | | 43 | |
| 2-3/4 | | | | | | 44 | |
| 3 | | | | | | 45 | |

MATERIAL: Steel, alloy, minimum proof load based on 130,000 PSI, Rockwell C36-43 in accordance with Type I of Procurement Specification.

PROTECTIVE COATING: Cadmium or Zinc, Specification QQ-P-416, Type II, Class 3 or QQ-Z-325, Type II, Class 3.

THREADS: The threads shall be in accordance with Screw-thread Standards for Federal Services, Handbook H-28.

MINIMUM THREAD LENGTH: Shall be twice the diameter, plus 1/2 in. or 1/2 the length whichever is the greater. Screws too short for the formula shall be threaded as close to the head as practicable.

LENGTH TOLERANCE: The allowable tolerance on the length (L) under the head on lengths 2 inches and under shall be 3 per cent of the nominal length with a minimum of .030 in., two-thirds to be applied plus and one third minus. On lengths over 2 in. to 6 in. plus or minus 1/32 in. and on lengths over 6 in. plus or minus 1/16 in.

- NOTES:**
- (1) Referenced documents of issue in effect on date of invitation for bids shall apply.
 - (2) This document has been promulgated by the Department of Defense as the Military Standard to limit the selection of the item, product or design covered herein in engineering, design and procurement. This standard shall become effective not later than 90 days after the latest date of approval shown and shall govern when in conflict with other documents referenced herein.
 - (3) Plain or knurled heads are optional.
 - (4) The MS part number consists of the MS number, plus the dash number. Example: MS35457-3.
 - (5) All dimensions in inches.

ⓑ ENTIRE STANDARD REVISED-INACTIVE FOR DESIGN SEE SHEET 3

| | | | |
|--------------------------------------|--------------|--|-------------------|
| P.A. | WC | TITLE | MILITARY STANDARD |
| Other Cust | SHIPS ASD | SCREW, CAP, SOCKET HEAD-HEXAGON, ALLOY STEEL, CADMIUM OR ZINC, UNC-3A | MS35457 |
| PROCUREMENT SPECIFICATION FF-S-86 | SUPERSEDES: | SHEET 1 OF 3 | |

REVIEWER: IS, EL, MI, SHIPS, WC, WEPS, HU, MO
USER: MC, DOCKS

| | | | | | FED. SUP CLASS | |
|--------------------|-------------|----------------|----------------|----------------|----------------|----------------|
| | | | | | 5305 | |
| NOMINAL SIZE | | 5/16 | 3/8 | 7/16 | 1/2 | 5/8 |
| B THREADS PER INCH | | 18 UNC-3A | 16 UNC-3A | 14 UNC-3A | 13 UNC-3A | 11 UNC-3A |
| D BODY DIAMETER | MAX MIN | .3125 .3084 | .3750 .3705 | .4375 .4326 | .5000 .4948 | .6250 .6191 |
| A HEAD DIAMETER | MAX MIN | 7/16 .429 | 9/16 .553 | 5/8 .615 | 3/4 .739 | 7/8 .863 |
| H HEAD HEIGHT | MAX MIN | 5/16 .306 | 3/8 .368 | 7/16 .430 | 1/2 .492 | 5/8 .616 |
| J SOCKET SIZE | NOM | 7/32 | 5/16 | 5/16 | 3/8 | 1/2 |
| R RADIUS | MAX MIN | .015 .010 | .015 .010 | .030 .020 | .030 .020 | .030 .020 |
| L LENGTH | DASH NO. | | DASH NO. | DASH NO. | DASH NO. | DASH NO. |
| 3/8 | 46 | | | | | |
| 1/2 | 47 | | 62 | 80 | 98 | |
| 5/8 | 48 | | 63 | 81 | 99 | |
| 3/4 | 49 | | 64 | 82 | 100 | |
| 7/8 | 50 | | 65 | 83 | 101 | |
| 1 | 51 | | 66 | 84 | 102 | 118 |
| 1-1/4 | 52 | | 67 | 85 | 103 | 119 |
| 1-1/2 | 53 | | 68 | 86 | 104 | 120 |
| 1-3/4 | 54 | | 69 | 87 | 105 | 121 |
| 2 | 55 | | 70 | 88 | 106 | 122 |
| 2-1/4 | 56 | | 71 | 89 | 107 | 123 |
| 2-1/2 | 57 | | 72 | 90 | 108 | 124 |
| 2-3/4 | 58 | | 73 | 91 | 109 | 125 |
| 3 | 59 | | 74 | 92 | 110 | 126 |
| 3-1/4 | 60 | | 75 | 93 | 111 | 127 |
| 3-1/2 | 61 | | 76 | 94 | 112 | 128 |
| 4 | | | 77 | 95 | 113 | 129 |
| 4-1/2 | | | 78 | | 114 | 130 |
| 5 | | | 79 | | 115 | 131 |
| 5-1/2 | | | | | 116 | 132 |
| 6 | | | | | 117 | 133 |

NOTE: For material, protective coating and other pertinent data, see sheet 1.

INACTIVE FOR DESIGN SEE SHEET 3

APPROVED 29 AUG 1955 REVISED (A) 5 APRIL 62 (B) FOR CHANGES SEE SHEET 1

| | | | |
|--------------------------------------|--------------|--|-------------------|
| P.A. | WC | TITLE | MILITARY STANDARD |
| Other Cust | SHIPS ASD | SCREW, CAP, SOCKET HEAD-HEXAGON, ALLOY STEEL, CADMIUM OR ZINC, UNC-3A | MS 35457 |
| PROCUREMENT SPECIFICATION FF-S-86 | SUPERSEDES: | SHEET 2 OF | |

REVIEWER: IS, EL, MY, SHIPS, WC, WEPS, MU, MO
USER: MC, DOCKS

| | | | | | | FED. SUP CLASS 5305 | |
|--|-------------|---|----------------|-----------------|-------------------------------|------------------------|-------------|
| NOMINAL SIZE | | 3/4 | 7/8 | 1 | | | |
| B THREADS PER FNCH | | 10 UNC-3A | 9 UNC-3A | 8 UNC-3A | | | |
| D BODY DIAMETER | MAX MIN | .7500 .7436 | .8750 .8680 | 1.0000 .9924 | | | |
| A HEAD DIAMETER | MAX MIN | 1 .987 | 1-1/8 1.111 | 1-5/16 1.297 | | | |
| H HEAD HEIGHT | MAX MIN | 3/4 .741 | 7/8 .865 | 1 .989 | | | |
| J SOCKET SIZE | NOM | 9/16 | 9/16 | 5/8 | | | |
| R RADIUS | MAX MIN | .040 .030 | .040 .030 | .040 .030 | | | |
| L LENGTH | DASH NO. | | DASH NO. | | DASH NO. | | DASH NO. |
| 1-1/4 | 134 | | | | | | |
| 1-1/2 | 135 | | | | | | |
| 1-3/4 | 136 | | | | | | |
| 2 | 137 | 149 | | 161 | | | |
| 2-1/4 | 138 | 150 | | 162 | | | |
| 2-1/2 | 139 | 151 | | 163 | | | |
| 2-3/4 | 140 | 152 | | 164 | | | |
| 3 | 141 | 153 | | 165 | | | |
| 3-1/4 | 142 | 154 | | 166 | | | |
| 3-1/2 | 143 | 155 | | 167 | | | |
| 4 | 144 | 156 | | 168 | | | |
| 4-1/2 | 145 | 157 | | 169 | | | |
| 5 | 146 | 158 | | 170 | | | |
| 5-1/2 | 147 | 159 | | 171 | | | |
| 6 | 148 | 160 | | 172 | | | |
| <p>NOTE: For material, protective coating and other pertinent data, see sheet 1.</p> <p>INACTIVE FOR DESIGN after 21 SEP 1964 Use MS16997 for Design and Engineering. For maintenance of existing equipment use MS35457 to replace the 5/16, 7/16, 5/8, 3/4, 7/8 and 1 inch sizes. These sizes cannot be replaced by those appearing on MS16997 in counterbored holes or other close applications.</p> | | | | | | | |
| P.A. WC Other Cust SHIPS ASD | | TITLE SCREW, CAP, SOCKET HEAD-HEXAGON, ALLOY STEEL, CADMIUM OR ZINC, UNC-3A | | | MILITARY STANDARD MS 35457 | | |
| PROCUREMENT SPECIFICATION FF-S-86 | | SUPERSEDES: | | | SHEET 3 OF | | |

APPROVED 29 AUG 1955 REVISED (A) 5 APRIL 62 (B) FOR CHANGES SEE SHEET 1

This military standard is approved by the Department of Defense and is mandatory on all activities. Selection for all new engineering and design applications and for repetitive use shall be made from this document.