

REVISIONS: EL. 15, MI. 20, SU. 10
 LSR: AT. GL. MC. ME. OS. SH. TO

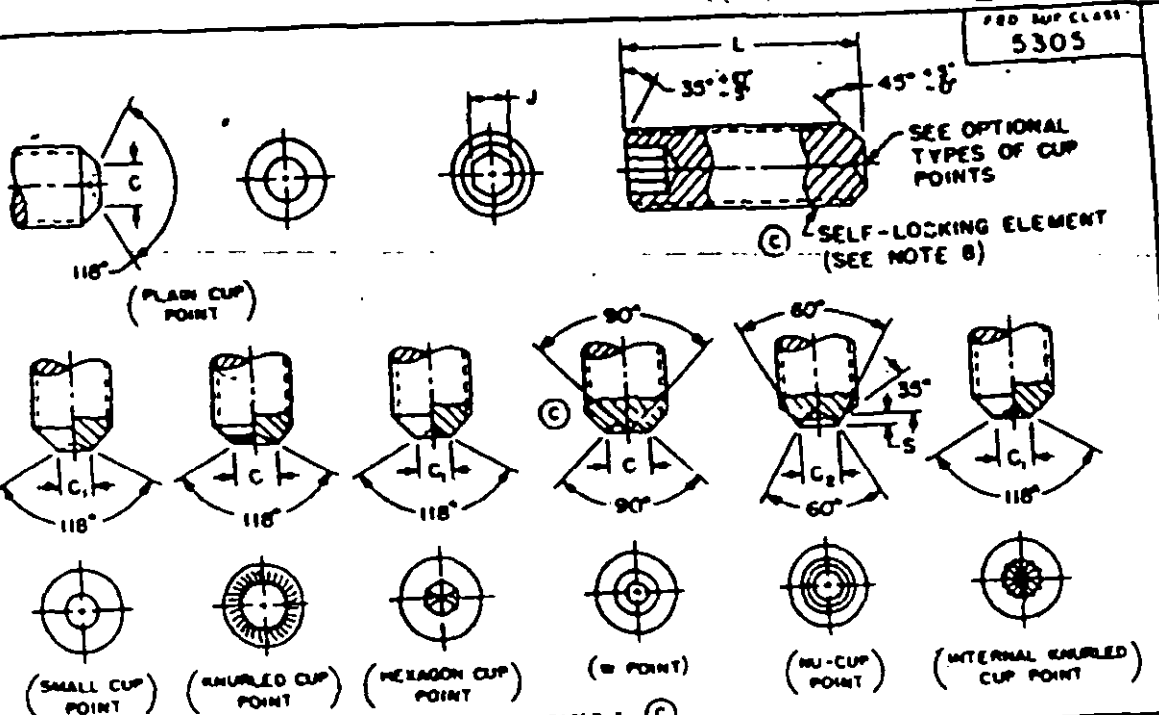


TABLE I (C)

| NOMINAL SIZE | .060 | .064 | .112 | .138 | .164 | .190 | .250 | .3125 | .375 | .500 |
|-----------------------------|------|------|------|------|------|------|------|-------|------|------|
| THREADS PER INCH (UNF-3A) | 80 | 64 | 48 | 40 | 36 | 32 | 28 | 24 | 24 | 20 |
| J SOCKET WIDTH ACROSS FLATS | WOM | .028 | .035 | .050 | .062 | .078 | .094 | .125 | .156 | .250 |
| C POINT DIAMETER | MAX | .031 | .047 | .061 | .074 | .087 | .102 | .132 | .156 | .250 |
| | MIN | .027 | .039 | .051 | .064 | .076 | .088 | .118 | .156 | .270 |
| C1 POINT DIAMETER | MAX | .032 | .043 | .054 | .069 | .085 | .102 | .125 | .156 | .250 |
| | MIN | .027 | .038 | .051 | .062 | .074 | .086 | .114 | .144 | .235 |
| C2 POINT DIAMETER | MAX | .027 | .043 | .059 | .074 | .090 | .101 | .156 | .190 | .313 |
| | MIN | .022 | .038 | .054 | .068 | .084 | .095 | .150 | .185 | .328 |
| S POINT LENGTH | MAX | .007 | .010 | .013 | .017 | .021 | .024 | .027 | .038 | .054 |
| | MIN | .004 | .007 | .008 | .012 | .016 | .019 | .022 | .033 | .049 |

| L LENGTH | TOL | DASH NUMBER | | | | | | | | | | | | | | | |
|----------|------|-------------|-------|-------|-------|-------|-------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|-----------|
| | | PLAIN | PLAIN | PLAIN | PLAIN | PLAIN | PLAIN | PLAIN | SELF LOCK | PLAIN | SELF LOCK | PLAIN | SELF LOCK | PLAIN | SELF LOCK | PLAIN | SELF LOCK |
| .125 | .010 | 1 | 9 | 18 | 27 | 36 | 48 | 101* | 60 | 112 | 72* | 125 | 83* | 137 | 93 | 147 | |
| .188 | | 2 | 10 | 19 | 28 | 38 | 49 | 102 | 61 | 113 | 73 | 126 | 84 | 138 | 94 | 148 | |
| .250 | | 3 | 11 | 20 | 29 | 39 | 50 | 103 | 62 | 114 | 74 | 127 | 85 | 139 | 95 | 149 | |
| .312 | | | 12 | 21 | 31 | 40 | 51 | 104 | 63 | 115 | 75 | 128 | 86 | 140 | 96 | 150 | |
| .375 | | | | | | | | 105 | 64 | 116 | 76 | 129 | 87 | 141 | 97 | 151 | |
| .438 | .010 | | | | 32 | 41 | 52 | 106 | 65 | 117 | 77 | 130 | 88 | 142 | 98 | 152 | |
| .500 | | | | | | 42 | 53 | 107 | 66 | 118 | 78 | 131 | 89 | 143 | 99 | 153 | |
| .562 | | | | | | | | 108 | 67 | 119 | 79 | 132 | 90 | 144 | 100 | 154 | |
| .625 | | | | | | | | 109 | 68 | 120 | 80 | 133 | 91 | 145 | 101 | 155 | |
| | | | | | | | | 110 | 69 | 121 | 81 | 134 | 92 | 146 | 102 | 156 | |
| .750 | .010 | | | | | | | | 111 | 70 | 135 | 93 | 147 | 103 | 157 | | |
| .875 | | | | | | | | | | 71 | 136 | 94 | 148 | 104 | 158 | | |
| 1.000 | | | | | | | | | | | 72 | 137 | 95 | 149 | 105 | | |
| 1.250 | | | | | | | | | | | 73 | 138 | 96 | 150 | 106 | | |
| 1.500 | | | | | | | | | | | 74 | 139 | 97 | 151 | 107 | | |
| 1.750 | .011 | | | | | | | | | | 134 | 144 | 154 | | | | |
| 2.000 | | | | | | | | | | | 135 | 145 | 155 | | | | |
| 2.500 | .011 | | | | | | | | | | 136 | 146 | 156 | | | | |
| 3.000 | | | | | | | | | | | | | | | | | |

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

* Inactive for new design after 29 DEC 1972.
 (C) For changes see sheets 1 and 2.

| | | |
|------------------------------------|---|--------------------------|
| P.A. VC Drawn 02 | TITLE SETScrew-HEXAGON SOCKET, CUP POINT, CORROSION-RESISTING STEEL, PASSIVATED, UNF-3A, PLAIN AND SELF-LOCKING | MILITARY STANDARD |
| | | MS 51023 |
| DOCUMENT SPECIFICATION FF-S-100 | SUPPLEMENT MS51024, BC213.1 and in part MS18064 and BC211.2 | SHEET 1 OF 1 |

APPROVED 7 MAY 1956 REVISED (A) 29 JAN 1964 (B) 26 NOV 1967 (C) 29 DEC 1972

NOTES

1. **MATERIAL:** Corrosion-Resisting Steel, 300 Series, in accordance with procurement specification.
2. **PROTECTIVE COATING:** Passivated in accordance with QQ-P-35.
3. **THREADS** The threads shall be in accordance with MIL-S-7742.
4. **MAGNETIC PERMEABILITY:** These setscrews have a magnetic permeability of 2.0 max (air = 1.0) for a field strength of H = 200 oersteds, when using a magnetic indicator per MIL-I-17214.
5. **DIMENSIONS:** All dimensions are in inches, unless otherwise specified.
6. **TOLERANCES:** Angles 15°, unless otherwise specified.
7. **PART NUMBER:** The MS part number consists of the MS number, plus the dash number.
Example: MS51023-1.
8. **SELF-LOCKING ELEMENT:**
 - (a) The self-locking element shall be in accordance with MIL-F-18240.
 - (b) For design and usage limitations, see MS15901.
 - (c) Location of effective locking area shall be in accordance with MS15901.
 - (d) Maximum ring gage diameter that locking region of setscrew must pass thru freely or with finger pressure shall be the nominal size plus 0.010.
 - (e) MIL-F-18240 doesn't establish torque requirements for lengths above the dashed line. Only a positive indication of torque is required.
9. Referenced documents shall be of the issue in effect on date of invitations for bid.
10. For design feature purposes, this standard takes precedence over procurement documents referenced herein.

INTERCHANGEABILITY

Screws covered by the dash numbers given in MS51024 are cancelled after 29 January 1964 and superseded by the screws covered on MS51023 having the same dash numbers. Cancelled screws may be used until existing stocks are depleted. Use only MS51023 screws for new design.

Screws covered by the dash numbers given in MS18064 in part are cancelled. Cancelled screws may be used until existing stocks are depleted. Use only the superseding screws for new design. Replacement shall be in accordance with Table II.

TABLE II

| CANCELLED | SUPERSEDING | CANCELLED | SUPERSEDING | CANCELLED | SUPERSEDING | CANCELLED | SUPERSEDING |
|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| MS18064 | MS51023 | MS18064 | MS51023 | MS18064 | MS51023 | MS18064 | MS51023 |
| DASH NUMBER | | DASH NUMBER | | DASH NUMBER | | DASH NUMBER | |
| 4 | 101 | 12 | 116 | 64 | 131 | 82 | 145 |
| 6 | 102 | 17 | 117 | 70 | 132 | 85 | 146 |
| 11 | 103 | 45 | 118 | 74 | 133 | 92 | 147 |
| 19 | 104 | 50 | 119 | 78 | 134 | 40 | 148 |
| 25 | 105 | 57 | 120 | 81 | 135 | 53 | 149 |
| 31 | 106 | 61 | 121 | 84 | 136 | 60 | 150 |
| 36 | 107 | 69 | 122 | 91 | 137 | 66 | 151 |
| 44 | 108 | 71 | 123 | 39 | 138 | 72 | 152 |
| 49 | 109 | 77 | 124 | 52 | 139 | 76 | 153 |
| 56 | 110 | 15 | 125 | 59 | 140 | 80 | 154 |
| 68 | 111 | 21 | 126 | 65 | 141 | 83 | 155 |
| 9 | 112 | 27 | 127 | 71 | 142 | 84 | 156 |
| 14 | 113 | 38 | 128 | 75 | 143 | 87 | 157 |
| 20 | 114 | 51 | 129 | 79 | 144 | 88 | 158 |
| 26 | 115 | 59 | 130 | | | | |

| | |
|--|---|
| TITLE SETSCREW-HEXAGON SOCKET, CUP POINT, CORROSION-RESISTING STEEL, PASSIVATED, UNF-3A, PLAIN AND SELF-LOCKING | MILITARY STANDARD MS51023 |
| DOCUMENT SPECIFICATION PF-5-200 | SUPERSEDES MS51024, BC11.1 and in part MS18064 and BC11.2 |

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

APPROVED 7 MAY 1956 REVISED A 29 JAN 1964 B 28 NOV 1967 C FOR CHANGES SEE SHEETS 1 AND 2.