



TABLE 1

| NOM. DIA | #A MAX | #A MIN | B MAX | C   | #D  |     | E MAX | M    |      | #W   |      | S MAX | T RAD MAX |
|----------|--------|--------|-------|-----|-----|-----|-------|------|------|------|------|-------|-----------|
|          |        |        |       |     | MAX | MIN |       | MAX  | MIN  | MAX  | MIN  |       |           |
| 1/16     | 1346   | 0898   | 0317  | 094 | 065 | 061 |       | 0165 | 0105 | 0842 | 0840 | 016   | 019       |
| 3/32     | 1900   | 1548   | 0418  | 140 | 097 | 093 | 008   | 0179 | 0118 | 1462 | 1460 | 023   | 029       |
| 1/8      | 2360   | 2006   | 0483  | 187 | 128 | 124 |       | 0191 | 0130 | 1892 | 1890 | 031   | 038       |
| 5/32     | 2976   | 2566   | 0614  | 234 | 159 | 155 | 010   | 0226 | 0163 | 2422 | 2420 | 039   | 049       |
| 3/16     | 3654   | 3234   | 0769  | 281 | 190 | 186 |       | 0252 | 0185 | 3036 | 3036 | 047   | 059       |
| 1/4      | 4890   | 4412   | 1034  | 375 | 253 | 249 |       | 0289 | 0220 | 4182 | 4180 | 062   | 078       |
| 5/16     | 5772   | 5288   | 1147  | 489 | 315 | 311 | 012   | 0315 | 0245 | 5000 | 4998 | 078   | 098       |
| 3/8      | 7074   | 6586   | 1436  | 562 | 378 | 374 |       | 0341 | 0270 | 6240 | 6238 | 094   | 117       |

- (a) SHANK DIAMETER TO BE MEASURED WITHIN 10 INCH OF BASE HEAD  
 (b) RECESSED TRIANGLE FOR MILD STEEL RIVETS ONLY RECESSED DASH FOR CORROSION-RESISTANT STEEL RIVETS ONLY NO HEAD MARKING REQUIREMENT FOR COPPER OR MONEL RIVETS  
 (c) THE CONICAL SURFACE OF THE HEAD SHALL BE CONCENTRIC WITH THE SHANK OF THE RIVET WITHIN .005 TOTAL RUNOUT  
 (d) HEAD COCKING ANGLE RELATIVE TO AXIS OF RIVET 1/2° MAXIMUM  
 (e) RIVETS MAY BE FURNISHED WITH PLAIN ENDS, OR A RADIUS TO T DIMENSION OR A 20° CHAMFER TO S DIMENSION
- REQUIREMENTS.
- MATERIAL.** CARBON STEEL, FED STD 66, C1010-C1015 ANNEALED AFTER HEADING, CORROSION-RESISTANT STEEL, FED STD 66, 300 SERIES, CONDITION A, ANNEALED AFTER HEADING BY HEATING AT 1950 TO 2,000°F FOR 5 MINUTES, FOLLOWED BY WATER QUENCH, MONEL, QQ-N-281 ANNEALED, COPPER, QQ-W-343 ANNEALED
  - FINISH.** CARBON STEEL CADMIUM PLATE IN ACCORDANCE WITH QQ-P-416 TYPE II, CLASS 3, OR BLACK OXIDE COATING PER MIL-C-13924 CLASS 1 MONEL WHEN SPECIFIED CADMIUM PLATE IN ACCORDANCE WITH QQ-P-416 TYPE II CLASS 3
  - SHEAR STRENGTH.** CORROSION-RESISTANT STEEL, 85,000 PSI TO 85,000 PSI; CARBON STEEL, 38,000 PSI TO 48,000 PSI; MONEL, 49,000 PSI TO 56,000 PSI; COPPER, 23,000 PSI TO 27,000 PSI
  - RIVETS SHALL DRIVE COLD SATISFACTORILY WITH A FULL HEAD FREE FROM CRACKS
  - RIVETS MUST BE TRUE TO FORM CONCENTRIC AND FREE FROM INJURIOUS SCALE, FINS SEAMS AND ALL OTHER INJURIOUS DEFECTS WHEN SPECIFIED ADD "C" IN LIEU OF DASH FOR CADMIUM PLATED MONEL RIVETS
  - PART NUMBERS.** THE PART NUMBER SHALL CONSIST OF THE BASIC MS NUMBER FOLLOWED BY A DASH NUMBER TAKEN FROM TABLE II
- (H) EXAMPLES OF PART NUMBERS
- MS20427-2X2 = RIVET, CARBON STEEL, BLACK OXIDE COATING 1/16 DIAMETER 1/8 LONG  
 MS20427-2C2 = RIVET CARBON STEEL, CADMIUM PLATED 1/16 DIAMETER, 1/8 LONG  
 MS20427F2-2 = RIVET CORROSION-RESISTANT STEEL, 1/16 DIAMETER, 1/8 LONG  
 MS20427M2-2 = RIVET, MONEL, 1/16 DIAMETER 1/8 LONG  
 MS20427C2-2 = RIVET COPPER, 1/16 DIAMETER 1/8 LONG  
 MS20427M2C2 = RIVET MONEL CADMIUM PLATED, 1/16 DIAMETER 1/8 LONG  
 MS20427M3-3-5 = RIVET MONEL, 3/32 DIAMETER 7/32 LONG
- FOR PART NUMBER OF RIVET LENGTH NOT LISTED ON SHEET 2 SHOW 1/16 INCREMENT REQUIRED, 1/32 INCREMENTS MAY BE OBTAINED BY ADDING -5 AFTER LAST DASH NUMBER.

NOTES

- DIMENSIONS IN INCHES ANGLE TOLERANCE ±5°
- DIMENSIONS #A, #A, AND B ARE INCLUDED FOR ENGINEERING REFERENCE PURPOSES ONLY AND ARE NOT TO BE USED FOR INSPECTION PURPOSES VALUES #A, #A, AND B ARE CALCULATED LIMITS RESULTING FROM TOLERANCES ON #W, M, E AND HEAD ANGLE
- MS20427 SUPERSEDES AN427 IN PART
- INTERCHANGEABILITY RELATION WITH AN427 RIVETS MS20427 RIVETS AND AN427 RIVETS OF LIKE DASH NUMBERS ARE UNIVERSALLY FUNCTIONALLY AND DIMENSIONALLY INTERCHANGEABLE
- 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
- REFERENCED GOVERNMENT (OR NON-GOVERNMENT) 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

(H) DENOTES CHANGE(S)

INCH-POUND

|  |   |  |
|--|---|--|
| PREPARING ACTIVITY DLA-IS<br>CUSTODIANS ARMY- AR NAVY- AS<br>AIR FORCE- 99 DLA-<br>REVIEW AV, GL, ME<br>USER CE MC<br>PROJECT NUMBER 5320-0814<br>DISTRIBUTION STATEMENT | MILITARY SPECIFICATION SHEET<br>TITLE<br>RIVET, SOLID-100° COUNTERSUNK HEAD,<br>CARBON STEEL, CORROSION-RESISTANT STEEL<br>MONEL AND COPPER | SPECIFICATION SHEET NUMBER<br>MS20427<br>8 FEB 94<br>REV H<br>SUPERSEDING<br>MS20427 G 17 JUN 93 (SEE NOTE 3)<br>AWS- N/A FSC 5320 |
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THE REQUIREMENTS FOR ACQUIRING THE PRODUCT(S) DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION SHEET AND THE ISSUE OF THE FOLLOWING SPECIFICATION LISTED IN THAT ISSUE OF THE DOWNS SPECIFIED IN THE SOLICITATION NONE

THIS SPECIFICATION IS APPROVED FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE

Form Approved  
OMB No 0704-0188

TABLE II

| CARBON STEEL<br>CADMIUM<br>PLATED | CORROSION<br>RESISTANT<br>STEEL | MONEL   | COPPER  | LENGTH | CARBON STEEL<br>CADMIUM<br>PLATED | CORROSION<br>RESISTANT<br>STEEL | MONEL   | COPPER  | LENGTH |
|-----------------------------------|---------------------------------|---------|---------|--------|-----------------------------------|---------------------------------|---------|---------|--------|
| DASH NO                           | DASH NO                         | DASH NO | DASH NO |        | DASH NO                           | DASH NO                         | DASH NO | DASH NO |        |
| 1/16 NOM DIA                      |                                 |         |         |        | 3/16 NOM DIA                      |                                 |         |         |        |
| -2C2                              | F2-2                            | M2-2    | C2-2    | 1/8    | -6C6                              | F6-6                            | M6-6    | C6-6    | 3/8    |
| -2C3                              | F2-3                            | M2-3    | C2-3    | 3/16   | -6C7                              | F6-7                            | M6-7    | C6-7    | 7/16   |
| -2C4                              | F2-4                            | M2-4    | C2-4    | 1/4    | -6C8                              | F6-8                            | M6-8    | C6-8    | 1/2    |
| -2C5                              | F2-5                            | M2-5    | C2-5    | 5/16   | -6C9                              | F6-9                            | M6-9    | C6-9    | 9/16   |
| -2C6                              | F2-6                            | M2-6    | C2-6    | 3/8    | -6C10                             | F6-10                           | M6-10   | C6-10   | 5/8    |
| -2C7                              | F2-7                            | M2-7    | C2-7    | 7/16   | -6C12                             | F6-12                           | M6-12   | C6-12   | 3/4    |
| -2C8                              | F2-8                            | M2-8    | C2-8    | 1/2    | -6C14                             | F6-14                           | M6-14   | C6-14   | 7/8    |
| -2C9                              | F2-9                            | M2-9    |         | 9/16   | -6C16                             | F6-16                           | M6-16   | C6-16   | 1      |
| -2C10                             | F2-10                           | M2-10   |         | 5/8    | -6C18                             | F6-18                           | M6-18   | C6-18   | 1-1/8  |
| 3/32 NOM DIA                      |                                 |         |         |        | -6C20                             | F6-20                           | M6-20   | C6-20   | 1-1/4  |
| -3C3                              | F3-3                            | M3-3    | C3-3    | 3/16   | -6C22                             | F6-22                           | M6-22   | C6-22   | 1-3/8  |
| -3C4                              | F3-4                            | M3-4    | C3-4    | 1/4    | -6C24                             | F6-24                           | M6-24   | C6-24   | 1-1/2  |
| -3C5                              | F3-5                            | M3-5    | C3-5    | 5/16   | -6C28                             | F6-28                           | M6-28   |         | 1-3/4  |
| -3C6                              | F3-6                            | M3-6    | C3-6    | 3/8    | -6C32                             | F6-32                           | M6-32   |         | 2      |
| -3C7                              | F3-7                            | M3-7    | C3-7    | 7/16   | -6C40                             | F6-40                           | M6-40   |         | 2-1/2  |
| -3C8                              | F3-8                            | M3-8    | C3-8    | 1/2    | -6C48                             | F6-48                           | M6-48   |         | 3      |
| -3C9                              | F3-9                            | M3-9    |         | 9/16   | 1/4 NOM DIA                       |                                 |         |         |        |
| -3C10                             | F3-10                           | M3-10   | C3-10   | 5/8    | -8C8                              | F8-8                            | M8-8    |         | 1/2    |
| -3C12                             | F3-12                           | M3-12   | C3-12   | 3/4    | -8C9                              | F8-9                            | M8-9    |         | 9/16   |
| -3C14                             | F3-14                           | M3-14   | C3-14   | 7/8    | -8C10                             | F8-10                           | M8-10   |         | 5/8    |
| -3C16                             | F3-16                           | M3-16   | C3-16   | 1      | -8C12                             | F8-12                           | M8-12   |         | 3/4    |
| 1/8 NOM DIA                       |                                 |         |         |        | -8C14                             | F8-14                           | M8-14   |         | 7/8    |
| -4C4                              | F4-4                            | M4-4    | C4-4    | 3/16   | -8C16                             | F8-16                           | M8-16   |         | 1      |
| -4C5                              | F4-5                            | M4-5    | C4-5    | 1/4    | -8C18                             | F8-18                           | M8-18   |         | 1-1/8  |
| -4C6                              | F4-6                            | M4-6    | C4-6    | 5/16   | -8C20                             | F8-20                           | M8-20   |         | 1-1/4  |
| -4C7                              | F4-7                            | M4-7    | C4-7    | 3/8    | -8C22                             | F8-22                           | M8-22   |         | 1-3/8  |
| -4C8                              | F4-8                            | M4-8    | C4-8    | 1/2    | -8C24                             | F8-24                           | M8-24   |         | 1-1/2  |
| -4C9                              | F4-9                            | M4-9    |         | 9/16   | -8C28                             | F8-28                           | M8-28   |         | 1-3/4  |
| -4C10                             | F4-10                           | M4-10   | C4-10   | 5/8    | -8C32                             | F8-32                           | M8-32   |         | 2      |
| -4C12                             | F4-12                           | M4-12   | C4-12   | 3/4    | -8C40                             | F8-40                           | M8-40   |         | 2-1/2  |
| -4C14                             | F4-14                           | M4-14   | C4-14   | 7/8    | -8C48                             | F8-48                           | M8-48   |         | 3      |
| -4C16                             | F4-16                           | M4-16   | C4-16   | 1      | 5/16 NOM DIA                      |                                 |         |         |        |
| -4C18                             | F4-18                           | M4-18   |         | 1-1/8  | -10C10                            | F10-10                          | M10-10  |         | 5/8    |
| -4C20                             | F4-20                           | M4-20   |         | 1-1/4  | -10C12                            | F10-12                          | M10-12  |         | 3/4    |
| -4C22                             | F4-22                           | M4-22   |         | 1-3/8  | -10C14                            | F10-14                          | M10-14  |         | 7/8    |
| -4C24                             | F4-24                           | M4-24   |         | 1-1/2  | -10C16                            | F10-16                          | M10-16  |         | 1      |
| -4C28                             | F4-28                           | M4-28   |         | 1-3/4  | -10C18                            | F10-18                          | M10-18  |         | 1-1/8  |
| 5/32 NOM DIA                      |                                 |         |         |        | -10C20                            | F10-20                          | M10-20  |         | 1-1/4  |
| -5C5                              | F5-5                            | M5-5    |         | 1/4    | -10C22                            | F10-22                          | M10-22  |         | 1-3/8  |
| -5C6                              | F5-6                            | M5-6    | C5-6    | 5/16   | -10C24                            | F10-24                          | M10-24  |         | 1-1/2  |
| -5C7                              | F5-7                            | M5-7    | C5-7    | 3/8    | -10C28                            | F10-28                          | M10-28  |         | 1-3/4  |
| -5C8                              | F5-8                            | M5-8    | C5-8    | 1/2    | -10C32                            | F10-32                          | M10-32  |         | 2      |
| -5C9                              | F5-9                            | M5-9    |         | 9/16   | -10C40                            | F10-40                          | M10-40  |         | 2-1/2  |
| -5C10                             | F5-10                           | M5-10   | C5-10   | 5/8    | -10C48                            | F10-48                          | M10-48  |         | 3      |
|                                   |                                 | M5-11   |         | 11/16  | 3/8 NOM DIA                       |                                 |         |         |        |
| -5C12                             | F5-12                           | M5-12   | C5-12   | 3/4    | -12C12                            | F12-12                          | M12-12  |         | 3/4    |
| -5C14                             | F5-14                           | M5-14   | C5-14   | 7/8    | -12C14                            | F12-14                          | M12-14  |         | 7/8    |
| -5C16                             | F5-16                           | M5-16   | C5-16   | 1      | -12C16                            | F12-16                          | M12-16  |         | 1      |
| -5C18                             | F5-18                           | M5-18   |         | 1-1/8  | -12C18                            | F12-18                          | M12-18  |         | 1-1/8  |
| -5C20                             | F5-20                           | M5-20   |         | 1-1/4  | -12C20                            | F12-20                          | M12-20  |         | 1-1/4  |
| -5C22                             | F5-22                           | M5-22   |         | 1-3/8  | -12C22                            | F12-22                          | M12-22  |         | 1-3/8  |
| -5C24                             | F5-24                           | M5-24   |         | 1-1/2  | -12C24                            | F12-24                          | M12-24  |         | 1-1/2  |
| -5C28                             | F5-28                           | M5-28   |         | 1-3/4  | -12C28                            | F12-28                          | M12-28  |         | 1-3/4  |
| -5C32                             | F5-32                           | M5-32   |         | 2      | -12C32                            | F12-32                          | M12-32  |         | 2      |
|                                   |                                 |         |         |        | -12C40                            | F12-40                          | M12-40  |         | 2-1/2  |
|                                   |                                 |         |         |        | -12C48                            | F12-48                          | M12-48  |         | 3      |

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