

RATIONALE

FIVE-YEAR REVIEW. CORRECT TYPO IN K DIM FOR -11. FIGURE 1 REDRAWN. REVISE TO ASME Y14.5-2018. REVISE LIGHTENING HOLE CONFIGURATION TO AS1132. REVISE HEAD TO SHANK FILLET TO "CR." REVISE HEAD RUNOUT (2 PLACES) FROM ".019" TO ".010" PER AS1132. ADD SUBSTITUTE DATUM ALLOWANCE FOR SHORT GRIP LENGTHS. UPDATE MATERIAL NOTE.

NOTICE

THE INITIAL SAE PUBLICATION OF THIS DOCUMENT WAS TAKEN DIRECTLY FROM U.S. MILITARY STANDARD MS9212 AMENDMENT 1. THIS SAE STANDARD MAY RETAIN THE SAME PART NUMBERS ESTABLISHED BY THE ORIGINAL MILITARY DOCUMENT.

ANY REQUIREMENTS ASSOCIATED WITH QUALIFIED PRODUCTS LISTS (QPL'S) MAY CONTINUE TO BE MANDATORY FOR DoD CONTRACTS. REQUIREMENTS RELATING TO QPL'S HAVE NOT BEEN ADOPTED BY THE SAE FOR THIS STANDARD AND ARE NOT PART OF THIS DOCUMENT.

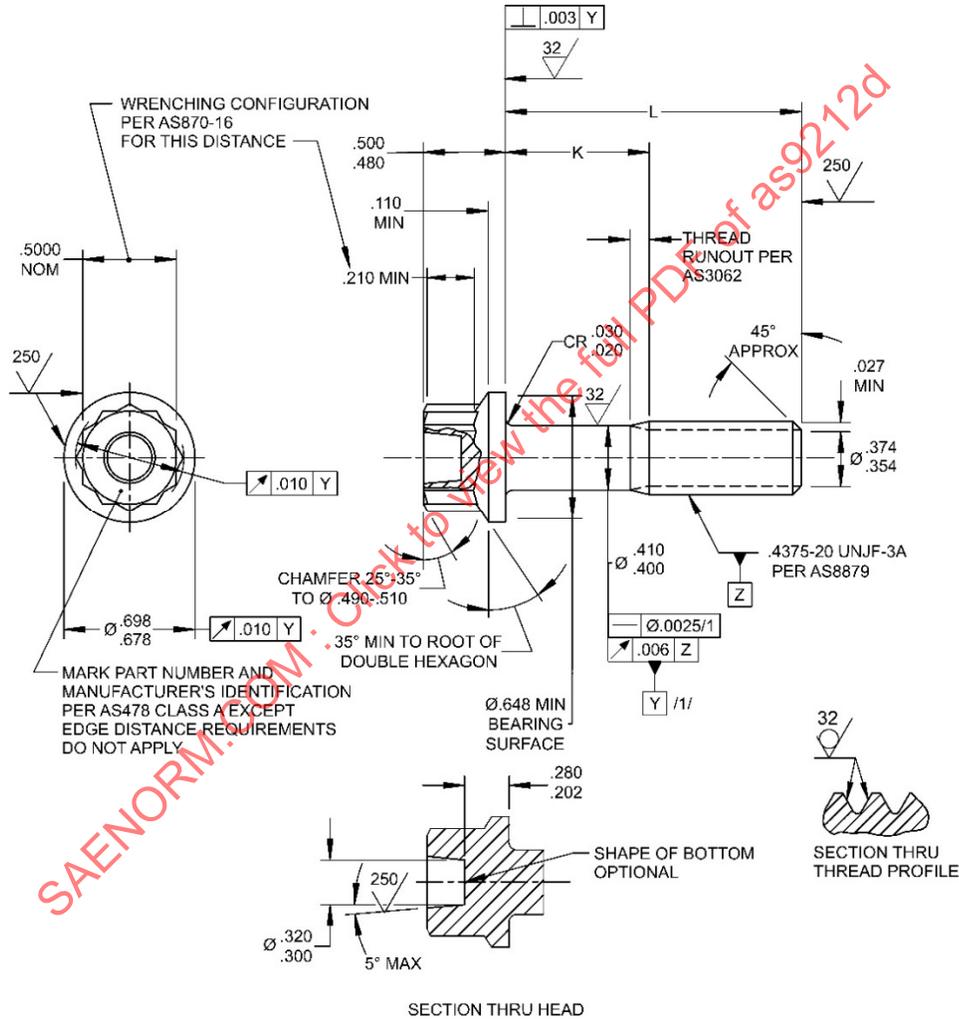
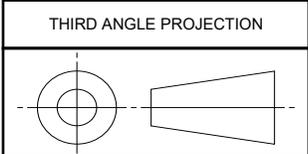


FIGURE 1 - BOLT

For more information on this standard, visit  
<https://www.sae.org/standards/content/AS9212D/>



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REV. D  
AS9212™

CUSTODIAN: E-25

PROCUREMENT SPECIFICATION: AS7459



**AEROSPACE STANDARD**

BOLT, MACHINE - STEEL, DIFFUSED NICKEL-CADMIUM PLATED, DOUBLE HEXAGON EXTENDED WASHER-HEAD, UNS K14675, 195 KSI MIN, .4375-20 UNJF-3A

AS9212™  
SHEET 1 OF 3

REV. D

**TABLE 1 - PART NUMBERS AND DIMENSIONS**

| PART NO.  | L     | K           | APPROX WEIGHT LB/100 | PART NO.  | L     | K           | APPROX WEIGHT LB/100 |
|-----------|-------|-------------|----------------------|-----------|-------|-------------|----------------------|
| MS9212-04 | .688  | .105- .125  | 5.05                 | MS9212-31 | 3.000 | 1.815-1.875 | 13.66                |
| MS9212-05 | .750  | .105- .125  | 5.28                 | MS9212-32 | 3.125 | 1.940-2.000 | 14.12                |
| MS9212-06 | .812  | .105- .125  | 5.51                 | MS9212-33 | 3.250 | 2.065-2.125 | 14.59                |
| MS9212-07 | .875  | .105- .125  | 5.74                 | MS9212-34 | 3.375 | 2.190-2.250 | 15.06                |
| MS9212-08 | .938  | .105- .125  | 5.97                 | MS9212-35 | 3.500 | 2.315-2.375 | 15.52                |
| MS9212-09 | 1.000 | .105- .125  | 6.20                 | MS9212-36 | 3.625 | 2.440-2.500 | 15.99                |
| MS9212-10 | 1.062 | .105- .125  | 6.43                 | MS9212-37 | 3.750 | 2.565-2.625 | 16.45                |
| MS9212-11 | 1.125 | .105- .125  | 6.67                 | MS9212-38 | 3.875 | 2.690-2.750 | 16.92                |
| MS9212-12 | 1.188 | .105- .125  | 6.90                 | MS9212-39 | 4.000 | 2.815-2.875 | 17.39                |
| MS9212-13 | 1.250 | .125- .145  | 7.13                 | MS9212-40 | 4.125 | 2.940-3.000 | 17.85                |
| MS9212-14 | 1.312 | .128- .188  | 7.36                 | MS9212-41 | 4.250 | 3.065-3.125 | 18.31                |
| MS9212-15 | 1.375 | .190- .250  | 7.59                 | MS9212-42 | 4.375 | 3.190-3.250 | 18.75                |
| MS9212-16 | 1.438 | .252- .312  | 7.82                 | MS9212-43 | 4.500 | 3.315-3.375 | 19.31                |
| MS9212-17 | 1.500 | .315- .375  | 8.05                 | MS9212-44 | 4.625 | 3.440-3.500 | 19.66                |
| MS9212-18 | 1.562 | .378- .438  | 8.27                 | MS9212-45 | 4.750 | 3.565-3.625 | 20.12                |
| MS9212-19 | 1.625 | .440- .500  | 8.50                 | MS9212-46 | 4.875 | 3.690-3.750 | 20.59                |
| MS9212-20 | 1.688 | .502- .562  | 8.73                 | MS9212-47 | 5.000 | 3.815-3.875 | 21.05                |
| MS9212-21 | 1.750 | .565- .625  | 8.96                 | MS9212-48 | 5.125 | 3.940-4.000 | 21.51                |
| MS9212-22 | 1.875 | .690- .750  | 9.43                 | MS9212-49 | 5.250 | 4.065-4.125 | 21.97                |
| MS9212-23 | 2.000 | .815- .875  | 9.90                 | MS9212-50 | 5.375 | 4.190-4.250 | 22.33                |
| MS9212-24 | 2.125 | .940-1.000  | 10.38                | MS9212-51 | 5.500 | 4.315-4.375 | 22.80                |
| MS9212-25 | 2.250 | 1.065-1.125 | 10.85                | MS9212-52 | 5.625 | 4.440-4.500 | 23.27                |
| MS9212-26 | 2.375 | 1.190-1.250 | 11.32                | MS9212-53 | 5.750 | 4.565-4.625 | 23.74                |
| MS9212-27 | 2.500 | 1.315-1.375 | 11.79                | MS9212-54 | 5.875 | 4.690-4.750 | 24.21                |
| MS9212-28 | 2.625 | 1.440-1.500 | 12.26                | MS9212-55 | 6.000 | 4.815-4.875 | 24.67                |
| MS9212-29 | 2.750 | 1.565-1.625 | 12.72                |           |       |             |                      |
| MS9212-30 | 2.875 | 1.690-1.750 | 13.19                |           |       |             |                      |

NOTES:

NOTICE

THIS DOCUMENT REFERENCES A PART WHICH CONTAINS CADMIUM AS A PLATING MATERIAL. CONSULT LOCAL OFFICIALS IF YOU HAVE QUESTIONS CONCERNING CADMIUM'S USE

- 1/ FOR PART NUMBERS MS9212-04 THROUGH MS9212-20, DATUM Z SHALL REPLACE DATUM Y.
2. MATERIAL: LOW ALLOY STEEL AMS6304 (COMPOSITION SIMILAR TO UNS K14675).
3. PROCUREMENT SPECIFICATION: AS7459.
4. FINISH: DIFFUSED NICKEL-CADMIUM PLATE AMS2416. DIMENSIONS ARE AFTER PLATING. CONTACT POINTS PERMISSIBLE. PD MAY BE REDUCED .0012 MAXIMUM BEFORE PLATING.
5. MAGNETIC PARTICLE INSPECTION PER ASTM E1444/E1444M BEFORE PLATING.
6. INCOMPLETE THREADS NOT TO ENTER FILLET.
7. SURFACE TEXTURE: SYMBOLS PER ASME Y14.36M. REQUIREMENTS PER ASME B46.1. UNLESS OTHERWISE SPECIFIED, SURFACES TO BE 125 MICROINCHES Ra, EXCEPT UPSET HEAD.
8. BREAK SHARP EDGES .003 TO .015, UNLESS OTHERWISE SPECIFIED.
9. DIMENSIONING AND TOLERANCING: ASME Y14.5-2018.

|   |   |                                |                         |
|---|---|--------------------------------|-------------------------|
|  | <b>AEROSPACE STANDARD</b>   | <b>AS9212™</b><br>SHEET 2 OF 3 | <b>REV.</b><br><b>D</b> |
|   | BOLT, MACHINE - STEEL, DIFFUSED NICKEL-CADMIUM PLATED, DOUBLE HEXAGON EXTENDED WASHER-HEAD, UNS K14675, 195 KSI MIN, .4375-20 UNJF-3A |                                |                         |