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AS9533

FEDERAL SUPPLY CLASS  
5306

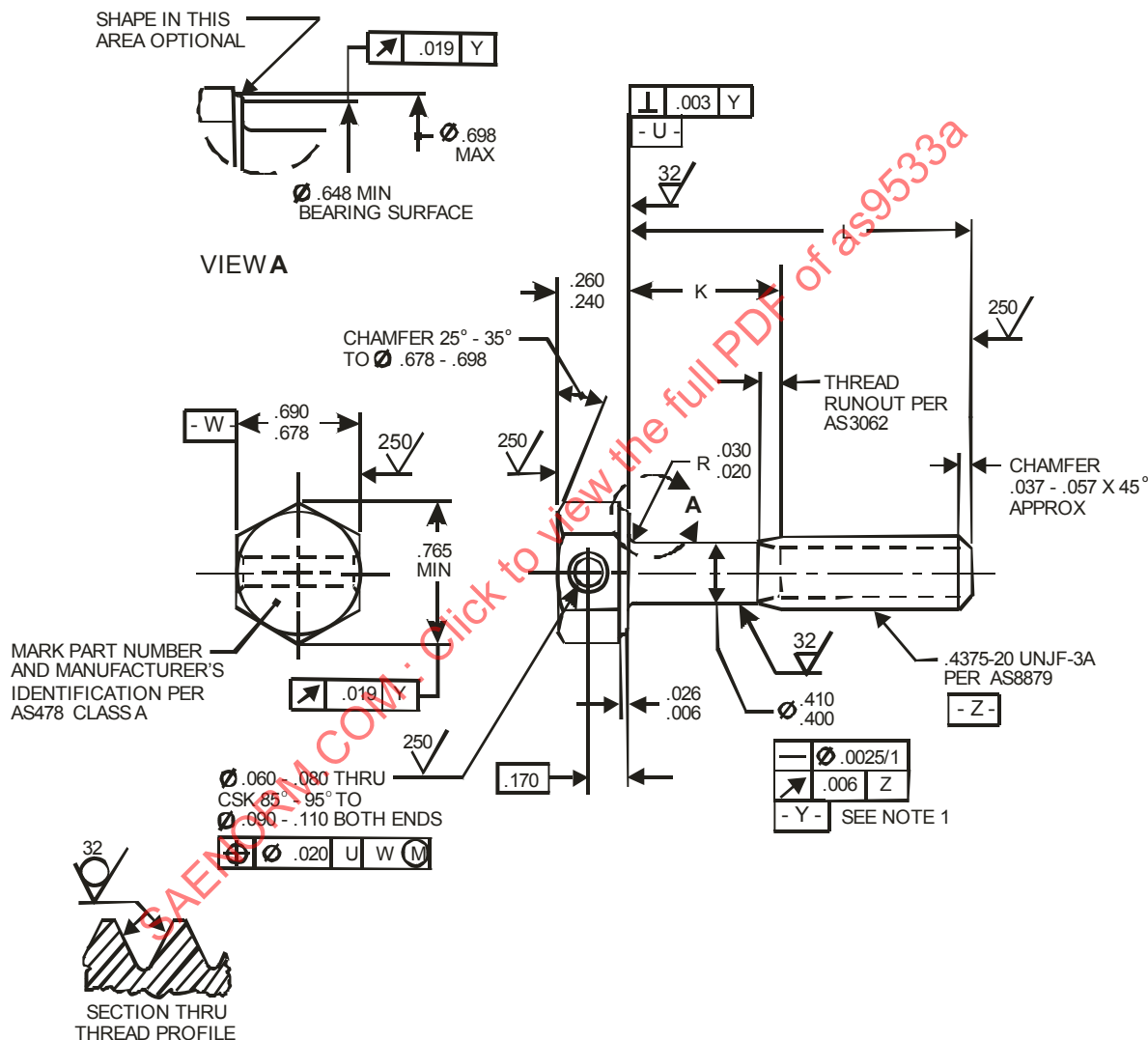
# RATIONALE

STANDARD UPDATED, CADMIUM NOTICE ADDED, THREAD SPECIFICATION REVISED TO AS8879, AND GEOMETRIC CONTROLS FOR SHORT LENGTH BOLTS CLARIFIED TO AGREE WITH AS1132.

# NOTICE

THE INITIAL SAE PUBLICATION OF THIS DOCUMENT WAS TAKEN DIRECTLY FROM U.S. MILITARY STANDARD MS9533, AMENDMENT 1. THIS SAE STANDARD RETAINS THE SAME PART NUMBERS ESTABLISHED BY THE ORIGINAL MILITARY DOCUMENT.

ANY REQUIREMENTS ASSOCIATED WITH QUALIFIED PRODUCTS LISTS (QPL) 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 SAE DOCUMENT.



CUSTODIAN: SAE E-25

PROCUREMENT SPECIFICATION: NONE

**SAE Aerospace**  
An SAE International Group

## AEROSPACE STANDARD

BOLT, MACHINE - HEXAGON HEAD, DRILLED 1 HOLE,  
CADMIUM PLATED, STEEL UNS G87400, 125 KSI MIN,  
.4375-20 UNJF-3A

**AS9533**  
SHEET 1 OF 3

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TABLE 1 - PART NUMBERS AND DIMENSIONS

| PART NO.  | L           | K           | APPROX.<br>MASS<br>LB/100 | PART NO.  | L           | K           | APPROX.<br>MASS<br>LB/100 |
|-----------|-------------|-------------|---------------------------|-----------|-------------|-------------|---------------------------|
| MS9533-04 | .678- .698  | .105- .125  | 5.78                      | MS9533-31 | 2.990-3.010 | 1.815-1.875 | 14.20                     |
| MS9533-05 | .740- .760  | .105- .125  | 6.01                      | MS9533-32 | 3.115-3.135 | 1.940-2.000 | 14.65                     |
| MS9533-06 | .802- .822  | .105- .125  | 6.24                      | MS9533-33 | 3.240-3.260 | 2.065-2.125 | 15.11                     |
| MS9533-07 | .865- .885  | .105- .125  | 6.47                      | MS9533-34 | 3.365-3.385 | 2.190-2.250 | 15.56                     |
| MS9533-08 | .928- .948  | .105- .125  | 6.69                      | MS9533-35 | 3.490-3.510 | 2.315-2.375 | 16.02                     |
| MS9533-09 | .990-1.010  | .105- .125  | 6.92                      | MS9533-36 | 3.615-3.635 | 2.440-2.500 | 16.47                     |
| MS9533-10 | 1.052-1.072 | .105- .125  | 7.15                      | MS9533-37 | 3.740-3.760 | 2.565-2.625 | 16.93                     |
| MS9533-11 | 1.115-1.135 | .105- .125  | 7.37                      | MS9533-38 | 3.865-3.885 | 2.690-2.750 | 17.38                     |
| MS9533-12 | 1.178-1.198 | .105- .125  | 7.60                      | MS9533-39 | 3.990-4.010 | 2.815-2.875 | 17.84                     |
| MS9533-13 | 1.240-1.260 | .105- .125  | 7.83                      | MS9533-40 | 4.115-4.135 | 2.940-3.000 | 18.29                     |
| MS9533-14 | 1.302-1.322 | .128- .188  | 8.06                      | MS9533-41 | 4.240-4.260 | 3.065-3.125 | 18.74                     |
| MS9533-15 | 1.365-1.385 | .190- .250  | 8.28                      | MS9533-42 | 4.365-4.385 | 3.190-3.250 | 19.20                     |
| MS9533-16 | 1.428-1.448 | .252- .312  | 8.51                      | MS9533-43 | 4.490-4.510 | 3.315-3.375 | 19.65                     |
| MS9533-17 | 1.490-1.510 | .315- .375  | 8.74                      | MS9533-44 | 4.615-4.635 | 3.440-3.500 | 20.11                     |
| MS9533-18 | 1.552-1.572 | .378- .438  | 8.97                      | MS9533-45 | 4.740-4.760 | 3.565-3.625 | 20.56                     |
| MS9533-19 | 1.615-1.635 | .440- .500  | 9.19                      | MS9533-46 | 4.865-4.885 | 3.690-3.750 | 21.02                     |
| MS9533-20 | 1.678-1.698 | .502- .562  | 9.42                      | MS9533-47 | 4.990-5.010 | 3.815-3.875 | 21.47                     |
| MS9533-21 | 1.740-1.760 | .565- .625  | 9.65                      | MS9533-48 | 5.115-5.135 | 3.940-4.000 | 21.93                     |
| MS9533-22 | 1.865-1.885 | .690- .750  | 10.10                     | MS9533-49 | 5.240-5.260 | 4.065-4.125 | 22.38                     |
| MS9533-23 | 1.990-2.010 | .815- .875  | 10.56                     | MS9533-50 | 5.365-5.385 | 4.190-4.250 | 22.84                     |
| MS9533-24 | 2.115-2.135 | .940-1.000  | 11.01                     | MS9533-51 | 5.490-5.510 | 4.315-4.375 | 23.29                     |
| MS9533-25 | 2.240-2.260 | 1.065-1.125 | 11.47                     | MS9533-52 | 5.615-5.635 | 4.440-4.500 | 23.75                     |
| MS9533-26 | 2.365-2.385 | 1.190-1.250 | 11.92                     | MS9533-53 | 5.740-5.760 | 4.565-4.625 | 24.20                     |
| MS9533-27 | 2.490-2.510 | 1.315-1.375 | 12.38                     | MS9533-54 | 5.865-5.885 | 4.690-4.750 | 24.66                     |
| MS9533-28 | 2.615-2.635 | 1.440-1.500 | 12.83                     | MS9533-55 | 5.990-6.010 | 4.815-4.875 | 25.11                     |
| MS9533-29 | 2.740-2.760 | 1.565-1.625 | 13.29                     |           |             |             |                           |
| MS9533-30 | 2.865-2.885 | 1.690-1.750 | 13.74                     |           |             |             |                           |

## NOTES:

## NOTICE

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

- FOR PART NUMBERS MS9533-04 THRU MS9533-24 THE THREAD PD (DATUM  $\square Z$ ) SHALL REPLACE DATUM  $\square Y$ .
- MATERIAL: LOW ALLOY STEEL AMS 6322 (UNS G87400).
- PROCUREMENT SPECIFICATION: AS7452, EXCEPT HEAD SHALL BE UPSET.
- FINISH: CADMIUM PLATE PER AMS 2400. DIMENSIONS ARE AFTER PLATING.
- MAGNETIC PARTICLE INSPECTION PER ASTM E 1444 BEFORE PLATING.
- INCOMPLETE THREADS NOT TO ENTER FILLET.

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|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------|
| <b>SAE Aerospace</b><br>An SAE International Group | <b>AEROSPACE STANDARD</b>                                                                                           | <b>AS9533</b><br>SHEET 2 OF 3 | <b>REV.</b><br><b>A</b> |
|                                                    | BOLT, MACHINE - HEXAGON HEAD, DRILLED 1 HOLE,<br>CADMIUM PLATED, STEEL UNS G87400, 125 KSI MIN,<br>.4375-20 UNJF-3A |                               |                         |