

REV. B

SAE AS9677

FEDERAL SUPPLY CLASS 5306

RATIONALE

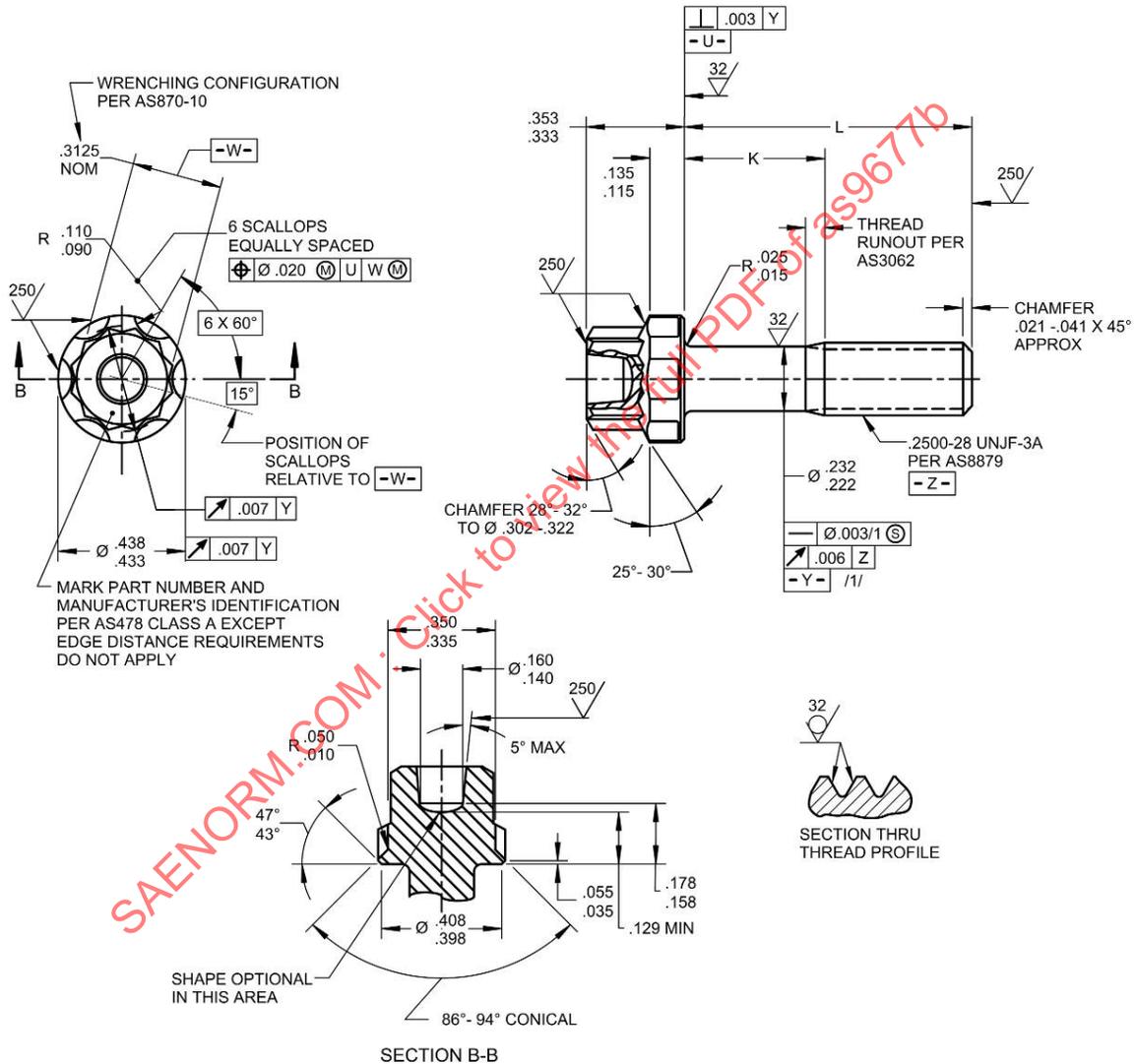
REVISE WRENCHING ELEMENT RUNOUT CALLOUT (RELOCATE FROM WRENCH FLATS TO POINTS), CORRECT DIAMETER OF LIGHTENING HOLE (RESTORE ORIGINAL VALUE), REVISE LIGHTENING HOLE CONFIGURATION (REVISE SECTION VIEW) TO ALLOW OPTIONAL SHAPE AT BOTTOM OF HOLE. DELETE RADIUS AT TRANSITION OF WRENCH FLATS AND BASE FLANGE, UPDATE REFERENCES.

NOTICE

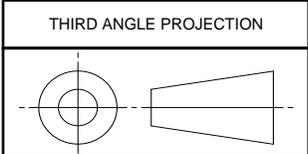
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CUSTODIAN: E-25

PROCUREMENT SPECIFICATION: AS7477

SAE Aerospace An SAE International Group

AEROSPACE STANDARD

BOLT, MACHINE - DOUBLE HEXAGON EXTENDED WASHER HEAD, PD SHANK, CUP WASHER LOCKED, CRES, UNS S66286, 130 KSI MIN, .2500-28 UNJF-3A

SAE AS9677 SHEET 1 OF 3

REV. B

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ISSUED 1999-08 REAFFIRMED 2007-06 REVISED 2013-07

TABLE 1 - PART NUMBERS AND DIMENSIONS

| PART NUMBER | L | K | APPROX. MASS LB/100 | PART NUMBER | L | K | APPROX. MASS LB/100 |
|-------------|-------------|-------------|---------------------|-------------|-------------|-------------|---------------------|
| MS9677-04 | .365- .385 | .079- .099 | 1.21 | MS9677-33 | 2.615-2.635 | 1.815-1.875 | 3.81 |
| MS9677-05 | .428- .448 | .079- .099 | 1.28 | MS9677-34 | 2.740-2.760 | 1.940-2.000 | 3.95 |
| MS9677-06 | .490- .510 | .079- .099 | 1.36 | MS9677-35 | 2.865-2.885 | 2.065-2.125 | 4.10 |
| MS9677-07 | .552- .572 | .079- .099 | 1.44 | MS9677-36 | 2.990-3.010 | 2.190-2.250 | 4.24 |
| MS9677-08 | .615- .635 | .079- .099 | 1.52 | MS9677-37 | 3.115-3.135 | 2.315-2.375 | 4.40 |
| MS9677-09 | .678- .698 | .079- .099 | 1.59 | MS9677-38 | 3.240-3.260 | 2.440-2.500 | 4.54 |
| MS9677-10 | .740- .760 | .079- .099 | 1.68 | MS9677-39 | 3.365-3.385 | 2.565-2.625 | 4.69 |
| MS9677-11 | .802- .822 | .079- .099 | 1.73 | MS9677-40 | 3.490-3.510 | 2.690-2.750 | 4.83 |
| MS9677-12 | .865- .885 | .079- .125 | 1.80 | MS9677-41 | 3.615-3.635 | 2.815-2.875 | 4.96 |
| MS9677-13 | .928- .948 | .128- .188 | 1.87 | MS9677-42 | 3.740-3.760 | 2.940-3.000 | 5.10 |
| MS9677-14 | .990-1.010 | .190- .250 | 1.94 | MS9677-43 | 3.865-3.885 | 3.065-3.125 | 5.24 |
| MS9677-15 | 1.052-1.072 | .252- .312 | 2.01 | MS9677-44 | 3.990-4.010 | 3.190-3.250 | 5.38 |
| MS9677-16 | 1.115-1.135 | .315- .375 | 2.08 | MS9677-45 | 4.115-4.135 | 3.315-3.375 | 5.53 |
| MS9677-17 | 1.178-1.198 | .378- .438 | 2.16 | MS9677-46 | 4.240-4.260 | 3.440-3.500 | 5.67 |
| MS9677-18 | 1.240-1.260 | .440- .500 | 2.23 | MS9677-47 | 4.365-4.385 | 3.565-3.625 | 5.82 |
| MS9677-19 | 1.302-1.322 | .502- .562 | 2.30 | MS9677-48 | 4.490-4.510 | 3.690-3.750 | 5.96 |
| MS9677-20 | 1.365-1.385 | .565- .625 | 2.37 | MS9677-49 | 4.615-4.635 | 3.815-3.875 | 6.11 |
| MS9677-21 | 1.428-1.448 | .628- .688 | 2.48 | MS9677-50 | 4.740-4.760 | 3.940-4.000 | 6.25 |
| MS9677-22 | 1.490-1.510 | .690- .750 | 2.52 | MS9677-51 | 4.865-4.885 | 4.065-4.125 | 6.40 |
| MS9677-23 | 1.552-1.572 | .752- .812 | 2.59 | MS9677-52 | 4.990-5.010 | 4.190-4.250 | 6.54 |
| MS9677-24 | 1.615-1.635 | .815- .875 | 2.66 | MS9677-53 | 5.115-5.135 | 4.315-4.375 | 6.67 |
| MS9677-25 | 1.678-1.698 | .878- .938 | 2.73 | MS9677-54 | 5.240-5.260 | 4.440-4.500 | 6.81 |
| MS9677-26 | 1.740-1.760 | .940-1.000 | 2.81 | MS9677-55 | 5.365-5.385 | 4.565-4.625 | 6.95 |
| MS9677-27 | 1.865-1.885 | 1.065-1.125 | 2.95 | MS9677-56 | 5.490-5.510 | 4.690-4.750 | 7.10 |
| MS9677-28 | 1.990-2.010 | 1.190-1.250 | 3.09 | MS9677-57 | 5.615-5.635 | 4.815-4.875 | 7.24 |
| MS9677-29 | 2.115-2.135 | 1.315-1.375 | 3.23 | MS9677-58 | 5.740-5.760 | 4.940-5.000 | 7.39 |
| MS9677-30 | 2.240-2.260 | 1.440-1.500 | 3.39 | MS9677-59 | 5.865-5.885 | 5.065-5.125 | 7.53 |
| MS9677-31 | 2.365-2.385 | 1.565-1.625 | 3.53 | MS9677-60 | 5.990-6.010 | 5.190-5.250 | 7.68 |
| MS9677-32 | 2.490-2.510 | 1.690-1.750 | 3.67 | | | | |

NOTES:

- 1/1 FOR PART NUMBERS MS9677-04 THRU MS9677-16 THE THREAD PD (DATUM **Z**) SHALL REPLACE DATUM **Y**.
2. MATERIAL: CORROSION AND HEAT RESISTANT STEEL PER AMS5731 (UNS S66286).
3. PROCUREMENT SPECIFICATION: AS7477
4. FLUORESCENT PENETRANT INSPECTION PER ASTM E1417/E1417M, TYPE 1, SENSITIVITY LEVEL 2 MIN.
5. SURFACE TEXTURE: SYMBOLS PER ASME Y14.36M. REQUIREMENTS PER ASME B46.1. UNLESS OTHERWISE SPECIFIED, SURFACES TO BE 125 MICROINCHES Ra.
6. BREAK SHARP EDGES .003 TO .015, UNLESS OTHERWISE SPECIFIED.
7. DIMENSIONS ARE IN INCHES.
8. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M-1982 (ASME PUBLICATION).
9. DO NOT USE UNASSIGNED PART NUMBERS.

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|  An SAE International Group | AEROSPACE STANDARD | SAE AS9677 SHEET 2 OF 3 | REV. B |
| | BOLT, MACHINE - DOUBLE HEXAGON EXTENDED WASHER HEAD, PD SHANK, CUP WASHER LOCKED, CRES, UNS S66286, 130 KSI MIN, .2500-28 UNJF-3A | | |