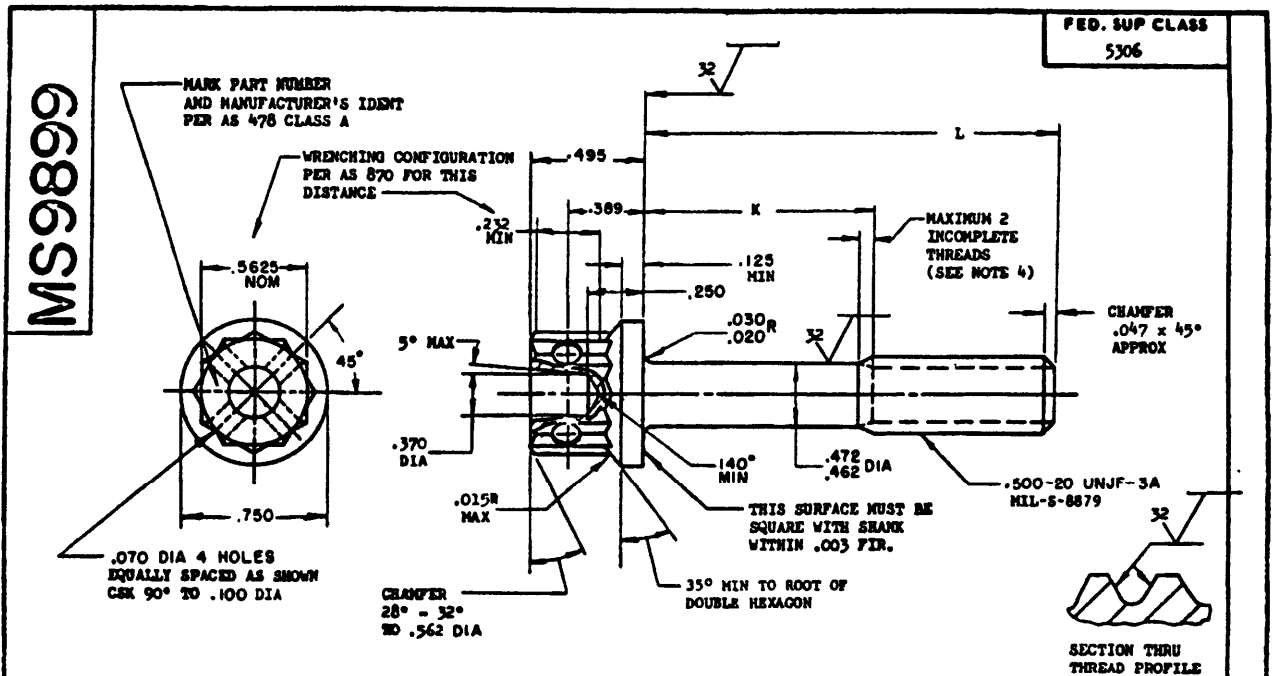


7355 8



| PART NO.  | L     | K         | APPROX WEIGHT LB/100 | PART NO.  | L     | K           | APPROX WEIGHT LB/100 | PART NO.  | L     | K           | APPROX WEIGHT LB/100 |
|-----------|-------|-----------|----------------------|-----------|-------|-------------|----------------------|-----------|-------|-------------|----------------------|
| MS9899-03 | .750  | .105-.125 | 7.64                 | MS9899-24 | 2.125 | .815-.875   | 14.41                | MS9899-44 | 4.625 | 3.315-3.375 | 26.67                |
| MS9899-04 | .812  | .105-.125 | 7.95                 | MS9899-25 | 2.250 | .940-1.000  | 15.02                | MS9899-45 | 4.750 | 3.440-3.500 | 27.28                |
| MS9899-05 | .875  | .105-.125 | 8.24                 | MS9899-26 | 2.375 | 1.065-1.125 | 15.64                | MS9899-46 | 4.875 | 3.565-3.625 | 27.94                |
| MS9899-06 | .938  | .105-.125 | 8.55                 | MS9899-27 | 2.500 | 1.190-1.250 | 16.26                | MS9899-47 | 5.000 | 3.690-3.750 | 28.55                |
| MS9899-07 | 1.000 | .105-.125 | 8.96                 | MS9899-28 | 2.625 | 1.315-1.375 | 16.87                | MS9899-48 | 5.125 | 3.815-3.875 | 29.16                |
| MS9899-08 | 1.062 | .105-.125 | 9.18                 | MS9899-29 | 2.750 | 1.440-1.500 | 17.48                | MS9899-49 | 5.250 | 3.940-4.000 | 29.77                |
| MS9899-09 | 1.125 | .105-.125 | 9.50                 | MS9899-30 | 2.875 | 1.565-1.625 | 18.09                | MS9899-50 | 5.375 | 4.065-4.125 | 30.38                |
| MS9899-10 | 1.188 | .105-.125 | 9.82                 | MS9899-31 | 3.000 | 1.690-1.750 | 18.70                | MS9899-51 | 5.500 | 4.190-4.250 | 30.99                |
| MS9899-11 | 1.250 | .105-.125 | 10.14                | MS9899-32 | 3.125 | 1.815-1.875 | 19.31                | MS9899-52 | 5.625 | 4.315-4.375 | 31.60                |
| MS9899-12 | 1.312 | .105-.125 | 10.44                | MS9899-33 | 3.250 | 1.940-2.000 | 19.92                | MS9899-53 | 5.750 | 4.440-4.500 | 32.21                |
| MS9899-13 | 1.375 | .105-.125 | 10.74                | MS9899-34 | 3.375 | 2.065-2.125 | 20.54                | MS9899-54 | 5.875 | 4.565-4.625 | 32.82                |
| MS9899-14 | 1.438 | .128-.188 | 11.05                | MS9899-35 | 3.500 | 2.190-2.250 | 21.16                | MS9899-55 | 6.000 | 4.690-4.750 | 33.43                |
| MS9899-15 | 1.500 | .190-.250 | 11.36                | MS9899-36 | 3.625 | 2.315-2.375 | 21.77                |           |       |             |                      |
| MS9899-16 | 1.562 | .252-.312 | 11.67                | MS9899-37 | 3.750 | 2.440-2.500 | 22.38                |           |       |             |                      |
| MS9899-17 | 1.625 | .315-.375 | 11.98                | MS9899-38 | 3.875 | 2.565-2.625 | 23.00                |           |       |             |                      |
| MS9899-18 | 1.688 | .378-.438 | 12.29                | MS9899-39 | 4.000 | 2.690-2.750 | 23.62                |           |       |             |                      |
| MS9899-19 | 1.750 | .440-.500 | 12.60                | MS9899-40 | 4.125 | 2.815-2.875 | 24.23                |           |       |             |                      |
| MS9899-20 | 1.812 | .502-.562 | 12.89                | MS9899-41 | 4.250 | 2.940-3.000 | 24.84                |           |       |             |                      |
| MS9899-21 | 1.875 | .565-.625 | 13.20                | MS9899-42 | 4.375 | 3.065-3.125 | 25.45                |           |       |             |                      |
| MS9899-22 | 1.938 | .628-.688 | 13.51                | MS9899-43 | 4.500 | 3.190-3.250 | 26.06                |           |       |             |                      |
| MS9899-23 | 2.000 | .690-.750 | 13.82                |           |       |             |                      |           |       |             |                      |

- SHANK SHALL BE STRAIGHT WITHIN .002 PER INCH OF BOLT LENGTH.
- THE CONCENTRICITY OF THREAD PD IN RELATION TO THE SHANK SHALL BE WITHIN .006 FIR.
- THE CONCENTRICITY OF THE SHANK IN RELATION TO THE WASHER FACE DIAMETER AND DOUBLE HEXAGON OD SHALL BE WITHIN .012 FIR.
- INCOMPLETE THREADS NOT TO ENTER FILLET.
- MATERIAL: CORROSION RESISTANT STEEL AMS 5616.
- MANUFACTURING SPECIFICATION: AMS 7470 EXCEPT HEAD SHALL BE UPSET.
- HEAD TO SHANK FILLET SHALL BE COLD ROLLED AFTER HEAT TREATMENT TO REMOVE ALL VISUAL EVIDENCE OF GRINDING OR TOOL MARKS.
- HARDNESS: ROCKWELL C32-38.
- SURFACE TEXTURE: USAS B46.1-1962. UNLESS OTHERWISE SPECIFIED, SURFACES TO BE 125 MICROINCHES EXCEPT UPSET HEAD.
- MAGNETIC PARTICLE INSPECTION PER AMS 2640.
- BREAK SHARP EDGES .003-.015 UNLESS OTHERWISE SPECIFIED.
- DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: LINEAR DIMENSIONS  $\pm .010$ , ANGULAR DIMENSIONS  $\pm 5^\circ$ .
- DO NOT USE UNASSIGNED PART NUMBERS.

AS & AMS ARE SOCIETY OF AUTOMOTIVE ENGINEERS, INC. PUBLICATIONS.  
THIS STANDARD WAS DEVELOPED COOPERATIVELY WITH THE MILITARY SERVICES BY THE SAE AEROSPACE PROPULSION DIVISION.

|                           |                                                                                       |                   |
|---------------------------|---------------------------------------------------------------------------------------|-------------------|
| P.A. USAP - 11            | TITLE                                                                                 | MILITARY STANDARD |
| Other Cont                | BOLT, MACHINE-DOUBLE HEXAGON EXTENDED WASHER HEAD, DRILLED, AMS 5616, .500 20 UNJF-3A | MS9899            |
| Navy - AS                 |                                                                                       |                   |
| PROCUREMENT SPECIFICATION | SUPERSEDES:                                                                           | SHEET 1 OF 1      |

This standard is approved by the Department of the Air Force and the Department of the Navy for use by these activities. All other military activities are required to employ this standard where suitable.

Review activity  
USAP