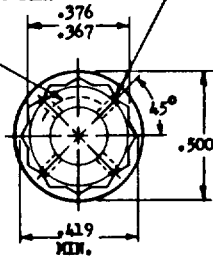


MS21290 AND MANUFACTURER'S IDENTIFICATION  
.047 MIN. HIGH CHARACTERS RAISED OR  
DEPRESSED .010 MAX.

.070 DIA. 4 HOLES  
EQUALLY SPACED AS  
SHOWN GSK 90 TO  
.100 DIA.



SECTION THRU THREAD PROFILE

CHAMFER 30°  
TO .375 DIA.

THIS SURFACE SHALL  
BE SQUARE WITH  
SHANK WITHIN  
.003 FIR.

MAX. 2  
IMPERFECT  
THD.

CHAMFER .047 x 45° APPROX.

.3125-24 UNJ-3A  
PER MIL-S-8879 EXCEPT THREADS  
TO BE ROLLED AFTER SOLUTION  
HEAT TREATMENT

| PART NO.   | L     | K<br>+.000<br>-.060 | APPROX.<br>WEIGHT<br>LB/100 | PART NO.   | L     | K<br>+.000<br>-.060 | APPROX.<br>WEIGHT<br>LB/100 | PART NO.   | L     | K<br>+.000<br>-.060 | APPROX.<br>WEIGHT<br>LB/100 |
|------------|-------|---------------------|-----------------------------|------------|-------|---------------------|-----------------------------|------------|-------|---------------------|-----------------------------|
| MS21290-04 | .500  | (a)                 | 2.14                        | MS21290-22 | 1.625 | .750                | 4.10                        | MS21290-40 | 3.750 | 2.875               | 7.95                        |
| MS21290-05 | .562  | (a)                 | 2.21                        | MS21290-23 | 1.688 | .812                | 4.22                        | MS21290-41 | 3.875 | 3.000               | 8.17                        |
| MS21290-06 | .625  | (a)                 | 2.28                        | MS21290-24 | 1.750 | .875                | 4.33                        | MS21290-42 | 4.000 | 3.125               | 8.40                        |
| MS21290-07 | .688  | (a)                 | 2.39                        | MS21290-25 | 1.875 | 1.000               | 4.55                        | MS21290-43 | 4.125 | 3.250               | 8.63                        |
| MS21290-08 | .750  | (a)                 | 2.51                        | MS21290-26 | 2.000 | 1.125               | 4.77                        | MS21290-44 | 4.250 | 3.375               | 8.86                        |
| MS21290-09 | .812  | (a)                 | 2.62                        | MS21290-27 | 2.125 | 1.250               | 5.00                        | MS21290-45 | 4.375 | 3.500               | 9.08                        |
| MS21290-10 | .875  | (a)                 | 2.73                        | MS21290-28 | 2.250 | 1.375               | 5.23                        | MS21290-46 | 4.500 | 3.625               | 9.30                        |
| MS21290-11 | .938  | (a)                 | 2.85                        | MS21290-29 | 2.375 | 1.500               | 5.45                        | MS21290-47 | 4.625 | 3.750               | 9.52                        |
| MS21290-12 | 1.000 | .125                | 2.96                        | MS21290-30 | 2.500 | 1.625               | 5.67                        | MS21290-48 | 4.750 | 3.875               | 9.74                        |
| MS21290-13 | 1.062 | .188                | 3.07                        | MS21290-31 | 2.625 | 1.750               | 5.90                        | MS21290-49 | 4.875 | 4.000               | 9.95                        |
| MS21290-14 | 1.125 | .250                | 3.19                        | MS21290-32 | 2.750 | 1.875               | 6.13                        | MS21290-50 | 5.000 | 4.125               | 10.17                       |
| MS21290-15 | 1.188 | .312                | 3.30                        | MS21290-33 | 2.875 | 2.000               | 6.36                        | MS21290-51 | 5.125 | 4.250               | 10.40                       |
| MS21290-16 | 1.250 | .375                | 3.41                        | MS21290-34 | 3.000 | 2.125               | 6.58                        | MS21290-52 | 5.250 | 4.375               | 10.63                       |
| MS21290-17 | 1.312 | .438                | 3.52                        | MS21290-35 | 3.125 | 2.250               | 6.80                        | MS21290-53 | 5.375 | 4.500               | 10.86                       |
| MS21290-18 | 1.375 | .500                | 3.64                        | MS21290-36 | 3.250 | 2.375               | 7.03                        | MS21290-54 | 5.500 | 4.625               | 11.10                       |
| MS21290-19 | 1.438 | .562                | 3.75                        | MS21290-37 | 3.375 | 2.500               | 7.27                        | MS21290-55 | 5.625 | 4.750               | 11.33                       |
| MS21290-20 | 1.500 | .625                | 3.87                        | MS21290-38 | 3.500 | 2.625               | 7.50                        | MS21290-56 | 5.750 | 4.875               | 11.56                       |
| MS21290-21 | 1.562 | .688                | 3.98                        | MS21290-39 | 3.625 | 2.750               | 7.73                        | MS21290-57 | 5.875 | 5.000               | 11.78                       |
|            |       |                     |                             |            |       |                     |                             | MS21290-58 | 6.000 | 5.125               | 12.00                       |

(a) THREAD TO HEAD. MAXIMUM TWO IMPERFECT THREADS. EXCEPT INCOMPLETE THREADS NOT TO ENTER FILLET RADIUS.

- NOTE: (1) SHANK SHALL BE STRAIGHT WITHIN .003 FIR. PER INCH OF BOLT LENGTH.  
(2) THE CONCENTRICITY OF THREAD PD IN RELATION TO THE SHANK SHALL BE WITHIN .006 FIR.  
(3) THE CONCENTRICITY OF THE SHANK IN RELATION TO THE WASHER FACE DIAMETER AND DOUBLE HEXAGON OD SHALL BE WITHIN .015 FIR.

MATERIAL: CORROSION AND HEAT RESISTANT STEEL AMS 5735  
MANUFACTURING SPECIFICATION: AMS 7478 EXCEPT HEADS TO BE FORMED BY HOT OR COLD UPSETTING.  
PART SUBJECT TO FLUORESCENT PENETRANT INSPECTION PER AMS 2645.  
SURFACE ROUGHNESS: MIL-STD-1C UNLESS OTHERWISE SPECIFIED, SURFACES TO BE 125 MICROINCHES.  
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.

This standard has been approved by the Department of the Navy and the Department of the Air Force and is mandatory for use by their activity. All other military activities are required to comply with this standard where applicable.

|   |   |                                    |
|---|---|------------------------------------|
| P.A. Navy - Wep<br>Other Cust Air Force - ASD | TITLE<br>BOLT, MACHINE - STEEL, DRILLED DOUBLE HEXAGON,<br>EXTENDED WASHER, .3125-24<br>(MIL-S-8879 THREAD) (B) | MILITARY STANDARD<br>MS21290 (ASG) |
| PROCUREMENT SPECIFICATION<br>NONE             | SUPERSEDES:   | SHEET 1 OF 1                       |