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<p>MARK PART NUMBER AND MANUFACTURERS IDENTIFICATION PER AS 478 CLASS A</p> <p>SECTION THROUGH THREAD PROFILE</p> <p>CHAMFER 30° TO .500 DIAMETER</p> <p>THIS SURFACE MUST BE SQUARE WITH SHANK WITHIN .003 FIR</p> <p>MAXIMUM 2 INCOMPLETE THREADS (SEE NOTE 4)</p> <p>CHAMFER .047 X 45° APPROX</p> <p>VIEW A ENLARGED</p> <p>.510 DIA MAX</p> <p>.460 DIA MIN BEARING SURFACE</p>					<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>PART NUMBER</th> <th>L</th> <th>K</th> <th>APPROX WEIGHT LB/100</th> </tr> </thead> <tbody> <tr><td>MS9491-04</td><td>.500</td><td>.088-.108</td><td>2.18</td></tr> <tr><td>MS9491-05</td><td>.562</td><td>.088-.108</td><td>2.32</td></tr> <tr><td>MS9491-06</td><td>.625</td><td>.088-.108</td><td>2.45</td></tr> <tr><td>MS9491-07</td><td>.688</td><td>.088-.108</td><td>2.59</td></tr> <tr><td>MS9491-08</td><td>.750</td><td>.088-.108</td><td>2.73</td></tr> <tr><td>MS9491-09</td><td>.812</td><td>.088-.108</td><td>2.86</td></tr> <tr><td>MS9491-10</td><td>.875</td><td>.088-.108</td><td>3.00</td></tr> <tr><td>MS9491-11</td><td>.938</td><td>.088-.108</td><td>3.13</td></tr> <tr><td>MS9491-12</td><td>1.000</td><td>.088-.125</td><td>3.27</td></tr> <tr><td>MS9491-13</td><td>1.062</td><td>.128-.188</td><td>3.40</td></tr> <tr><td>MS9491-14</td><td>1.125</td><td>.190-.250</td><td>3.54</td></tr> <tr><td>MS9491-15</td><td>1.188</td><td>.252-.312</td><td>3.67</td></tr> <tr><td>MS9491-16</td><td>1.250</td><td>.315-.375</td><td>3.81</td></tr> <tr><td>MS9491-17</td><td>1.312</td><td>.378-.438</td><td>3.94</td></tr> <tr><td>MS9491-18</td><td>1.375</td><td>.440-.500</td><td>4.08</td></tr> <tr><td>MS9491-19</td><td>1.438</td><td>.502-.562</td><td>4.21</td></tr> <tr><td>MS9491-20</td><td>1.500</td><td>.565-.625</td><td>4.35</td></tr> <tr><td>MS9491-21</td><td>1.562</td><td>.628-.688</td><td>4.48</td></tr> <tr><td>MS9491-22</td><td>1.625</td><td>.690-.750</td><td>4.62</td></tr> <tr><td>MS9491-23</td><td>1.688</td><td>.752-.812</td><td>4.76</td></tr> <tr><td>MS9491-24</td><td>1.750</td><td>.815-.875</td><td>4.89</td></tr> <tr><td>MS9491-25</td><td>1.875</td><td>.940-1.000</td><td>5.16</td></tr> <tr><td>MS9491-26</td><td>2.000</td><td>1.065-1.125</td><td>5.43</td></tr> <tr><td>MS9491-27</td><td>2.125</td><td>1.190-1.250</td><td>5.70</td></tr> <tr><td>MS9491-28</td><td>2.250</td><td>1.315-1.375</td><td>5.97</td></tr> <tr><td>MS9491-29</td><td>2.375</td><td>1.440-1.500</td><td>6.24</td></tr> <tr><td>MS9491-30</td><td>2.500</td><td>1.565-1.625</td><td>6.51</td></tr> </tbody> </table> <table border="1" style="width: 100%; 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SHANK SHALL BE STRAIGHT WITHIN .003 TOTAL PER INCH OF BOLT LENGTH</p> <p>2. THE CONCENTRICITY OF THREAD PD IN RELATION TO THE SHANK SHALL BE WITHIN .006 FIR</p> <p>3. THE CONCENTRICITY OF THE SHANK IN RELATION TO THE WASHER FACE DIAMETER AND HEXAGON SHALL BE WITHIN .015 FIR.</p> <p>4. INCOMPLETE THREADS NOT TO ENTER FILLET</p> <p>5. MATERIAL CORROSION AND HEAT RESISTANT STEEL AMS 5731</p> <p>6. MANUFACTURING SPECIFICATION AMS 7477.</p> <p>7. FLUORESCENT PENETRANT INSPECTION PER AMS 2645.</p> <p>8. SURFACE TEXTURE USAS B46 1-1962 UNLESS OTHERWISE SPECIFIED SURFACES TO BE 125 MICROINCHES EXCEPT HEXAGON</p> <p>9. BREAK SHARP EDGES .003-.015 UNLESS OTHERWISE SPECIFIED</p> <p>10. DIMENSIONS IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES LINEAR DIMENSIONS $\pm .010$, ANGULAR DIMENSIONS $\pm 5^\circ$.</p> <p>11. DO NOT USE UNASSIGNED PART NUMBERS.</p>				
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<p>AS & AMS ARE SOCIETY OF AUTOMOTIVE ENGINEERS, INC. PUBLICATIONS.</p> <p>THIS STANDARD WAS DEVELOPED COOPERATIVELY WITH THE MILITARY SERVICES BY THE SAE AEROSPACE PART STANDARDS DIVISION</p>																																																																																																																																																																																																																																																										
<p>P USAF - 11</p> <p>Other Cust</p> <p>Army - AV</p> <p>Navy - AS</p>		<p>INTERNATIONAL</p> <p>INTENAT</p> <p>ASSOC AIR IND</p> <p>17/2</p>		<p>TITLE</p> <p>(A) BOLT, MACHINE - HEXAGON HEAD FULL SHANK, AMS 5731, 3125-24 UNJF-3A</p>		<p>MILITARY STANDARD</p> <p>MS9491</p>																																																																																																																																																																																																																																																				
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Approved by the Department of Defense and is mandatory on all activities. Selection for all new engineering and design applications and for repetitive use shall be made from this document.

APPROVED 5 May 1965 REVISED 17 Nov 69