**TABLE 1. CONFIGURATION DIMENSIONS.**

<table>
<thead>
<tr>
<th>NOMINAL SIZE</th>
<th>Ø D MAX</th>
<th>Ø D MIN</th>
<th>Ø B MAX</th>
<th>Ø B MIN</th>
<th>C &amp; R MAX</th>
<th>C &amp; R MIN</th>
<th>DOUBLE SHEAR STRENGTH CARBON OR ALLOY STEEL</th>
<th>CRES</th>
</tr>
</thead>
<tbody>
<tr>
<td>.0625</td>
<td>.0628</td>
<td>.0626</td>
<td>.058</td>
<td>.042</td>
<td>.020</td>
<td>.008</td>
<td>.800</td>
<td>610</td>
</tr>
<tr>
<td>.07812/</td>
<td>.0784</td>
<td>.0782</td>
<td>.074</td>
<td>.058</td>
<td>.026</td>
<td>.010</td>
<td>1,140</td>
<td>700</td>
</tr>
<tr>
<td>.0938</td>
<td>.0941</td>
<td>.0939</td>
<td>.090</td>
<td>.074</td>
<td>.031</td>
<td>.012</td>
<td>1,800</td>
<td>1,000</td>
</tr>
<tr>
<td>.1250</td>
<td>.1253</td>
<td>.1251</td>
<td>.121</td>
<td>.105</td>
<td>.041</td>
<td>.016</td>
<td>1,200</td>
<td>1,800</td>
</tr>
<tr>
<td>.15625/</td>
<td>.1565</td>
<td>.1563</td>
<td>.152</td>
<td>.136</td>
<td>.052</td>
<td>.020</td>
<td>3,000</td>
<td>2,800</td>
</tr>
<tr>
<td>.1875</td>
<td>.1878</td>
<td>.1876</td>
<td>.183</td>
<td>.167</td>
<td>.062</td>
<td>.023</td>
<td>7,200</td>
<td>4,000</td>
</tr>
<tr>
<td>.2500</td>
<td>.2503</td>
<td>.2501</td>
<td>.246</td>
<td>.230</td>
<td>.083</td>
<td>.031</td>
<td>12,800</td>
<td>7,200</td>
</tr>
<tr>
<td>.3125</td>
<td>.3128</td>
<td>.3126</td>
<td>.309</td>
<td>.293</td>
<td>.104</td>
<td>.039</td>
<td>20,000</td>
<td>11,000</td>
</tr>
<tr>
<td>.3750</td>
<td>.3753</td>
<td>.3751</td>
<td>.371</td>
<td>.355</td>
<td>.125</td>
<td>.047</td>
<td>26,000</td>
<td>16,000</td>
</tr>
<tr>
<td>.4775</td>
<td>.4778</td>
<td>.4776</td>
<td>.433</td>
<td>.417</td>
<td>.146</td>
<td>.055</td>
<td>36,000</td>
<td>22,000</td>
</tr>
<tr>
<td>.5000</td>
<td>.5003</td>
<td>.5001</td>
<td>.496</td>
<td>.480</td>
<td>.167</td>
<td>.063</td>
<td>50,000</td>
<td>29,000</td>
</tr>
<tr>
<td>.5250</td>
<td>.5253</td>
<td>.5251</td>
<td>.521</td>
<td>.505</td>
<td>.208</td>
<td>.078</td>
<td>78,000</td>
<td>45,000</td>
</tr>
<tr>
<td>.750</td>
<td>.7501</td>
<td>.7501</td>
<td>.746</td>
<td>.730</td>
<td>.250</td>
<td>.094</td>
<td>114,000</td>
<td>65,000</td>
</tr>
<tr>
<td>.875</td>
<td>.8751</td>
<td>.8751</td>
<td>.871</td>
<td>.855</td>
<td>.293</td>
<td>.109</td>
<td>136,000</td>
<td>88,000</td>
</tr>
<tr>
<td>1.000</td>
<td>1.0001</td>
<td>1.0001</td>
<td>.996</td>
<td>.980</td>
<td>.333</td>
<td>.125</td>
<td>204,000</td>
<td>110,000</td>
</tr>
</tbody>
</table>

\* INACTIVE - SEE PAGES 2 AND 3.

© ENTIRE STANDARD REVISED

**PIN, STRAIGHT, HEADLESS (DOWEL)**

(.0002 OVER NOMINAL SIZE)

**MILITARY STANDARD**

**MS 16555**

**DD FORM 572-1 (COORDINATED)**

**5315-0391**
### TABLE II. DASH NUMBERS AND DIMENSIONS - CARBON OR ALLOY STEEL - PLAIN

<table>
<thead>
<tr>
<th>LENGTH</th>
<th>NOMINAL SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>.0625</td>
<td>145</td>
</tr>
<tr>
<td>.0781</td>
<td>23</td>
</tr>
<tr>
<td>.0938</td>
<td>13</td>
</tr>
<tr>
<td>.125</td>
<td>18</td>
</tr>
<tr>
<td>.1562</td>
<td>17</td>
</tr>
<tr>
<td>.1875</td>
<td>16</td>
</tr>
<tr>
<td>.250</td>
<td>53</td>
</tr>
<tr>
<td>.3125</td>
<td>48</td>
</tr>
<tr>
<td>.375</td>
<td>44</td>
</tr>
<tr>
<td>.438</td>
<td>44</td>
</tr>
<tr>
<td>.500</td>
<td>49</td>
</tr>
<tr>
<td>.5625</td>
<td>49</td>
</tr>
<tr>
<td>.625</td>
<td>50</td>
</tr>
<tr>
<td>.6875</td>
<td>53</td>
</tr>
<tr>
<td>.750</td>
<td>50</td>
</tr>
<tr>
<td>.875</td>
<td>40</td>
</tr>
<tr>
<td>1.000</td>
<td>40</td>
</tr>
</tbody>
</table>

1/ INACTIVE FOR NEW DESIGN AFTER 8 APR 1975.

### TABLE III. DASH NUMBERS AND DIMENSIONS - CARBON OR ALLOY STEEL - PHOSPHATE COATED

<table>
<thead>
<tr>
<th>LENGTH</th>
<th>NOMINAL SIZE</th>
</tr>
</thead>
<tbody>
<tr>
<td>.0625</td>
<td>309</td>
</tr>
<tr>
<td>.0781</td>
<td>312</td>
</tr>
<tr>
<td>.0938</td>
<td>303</td>
</tr>
<tr>
<td>.125</td>
<td>312</td>
</tr>
<tr>
<td>.1562</td>
<td>311</td>
</tr>
<tr>
<td>.1875</td>
<td>311</td>
</tr>
<tr>
<td>.250</td>
<td>318</td>
</tr>
<tr>
<td>.3125</td>
<td>318</td>
</tr>
<tr>
<td>.375</td>
<td>319</td>
</tr>
<tr>
<td>.438</td>
<td>325</td>
</tr>
<tr>
<td>.500</td>
<td>327</td>
</tr>
<tr>
<td>.5625</td>
<td>333</td>
</tr>
<tr>
<td>.625</td>
<td>334</td>
</tr>
<tr>
<td>.6875</td>
<td>333</td>
</tr>
<tr>
<td>1.000</td>
<td>350</td>
</tr>
<tr>
<td>1.250</td>
<td>354</td>
</tr>
<tr>
<td>1.500</td>
<td>354</td>
</tr>
<tr>
<td>1.750</td>
<td>355</td>
</tr>
<tr>
<td>2.000</td>
<td>356</td>
</tr>
<tr>
<td>2.250</td>
<td>357</td>
</tr>
<tr>
<td>2.500</td>
<td>358</td>
</tr>
<tr>
<td>2.750</td>
<td>362</td>
</tr>
<tr>
<td>3.000</td>
<td>362</td>
</tr>
<tr>
<td>3.250</td>
<td>376</td>
</tr>
<tr>
<td>3.500</td>
<td>364</td>
</tr>
<tr>
<td>3.750</td>
<td>364</td>
</tr>
<tr>
<td>4.000</td>
<td>364</td>
</tr>
<tr>
<td>4.500</td>
<td>364</td>
</tr>
<tr>
<td>5.000</td>
<td>364</td>
</tr>
<tr>
<td>6.000</td>
<td>364</td>
</tr>
</tbody>
</table>

1/ INACTIVE FOR NEW DESIGN AFTER 8 APR 1975.

### PIN, STRAIGHT, HEADLESS (Dowel)

(0002 OVER NOMINAL SIZE)

P A A R
OS
99

MIL-P-21143

DD 672-1

MS 16555

5315-0391

Approved 27 Dec 57

5315-0391

Check the source to verify that this is the current version before use.
### Table IV. Dash Numbers and Dimensions

<table>
<thead>
<tr>
<th>L</th>
<th>0.0625</th>
<th>0.0781</th>
<th>0.0938</th>
<th>0.125</th>
<th>0.1562</th>
<th>0.1875</th>
<th>0.250</th>
<th>0.3125</th>
<th>0.375</th>
<th>0.438</th>
<th>0.500</th>
<th>0.625</th>
<th>0.750</th>
<th>0.875</th>
<th>1.000</th>
</tr>
</thead>
<tbody>
<tr>
<td>.100</td>
<td>601</td>
<td>602</td>
<td>603</td>
<td>604</td>
<td>605</td>
<td>606</td>
<td>607</td>
<td>608</td>
<td>609</td>
<td>610</td>
<td>611</td>
<td>612</td>
<td>613</td>
<td>614</td>
<td>615</td>
</tr>
<tr>
<td>.188</td>
<td></td>
<td>433</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>.250</td>
<td>602</td>
<td>603</td>
<td>604</td>
<td>605</td>
<td>606</td>
<td>607</td>
<td>608</td>
<td>609</td>
<td>610</td>
<td>611</td>
<td>612</td>
<td>613</td>
<td>614</td>
<td>615</td>
<td>616</td>
</tr>
<tr>
<td>.322</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>.375</td>
<td>604</td>
<td>605</td>
<td>606</td>
<td>607</td>
<td>608</td>
<td>609</td>
<td>6010</td>
<td>611</td>
<td>612</td>
<td>613</td>
<td>614</td>
<td>615</td>
<td>616</td>
<td>617</td>
<td>618</td>
</tr>
<tr>
<td>.438</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>.500</td>
<td>606</td>
<td>607</td>
<td>608</td>
<td>609</td>
<td>610</td>
<td>611</td>
<td>612</td>
<td>613</td>
<td>614</td>
<td>615</td>
<td>616</td>
<td>617</td>
<td>618</td>
<td>619</td>
<td>620</td>
</tr>
<tr>
<td>.562</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>.750</td>
<td>608</td>
<td>609</td>
<td>610</td>
<td>611</td>
<td>612</td>
<td>613</td>
<td>614</td>
<td>615</td>
<td>616</td>
<td>617</td>
<td>618</td>
<td>619</td>
<td>620</td>
<td>621</td>
<td>622</td>
</tr>
<tr>
<td>.875</td>
<td>612</td>
<td>613</td>
<td>614</td>
<td>615</td>
<td>616</td>
<td>617</td>
<td>618</td>
<td>619</td>
<td>620</td>
<td>621</td>
<td>622</td>
<td>623</td>
<td>624</td>
<td>625</td>
<td>626</td>
</tr>
<tr>
<td>1.000</td>
<td>616</td>
<td>617</td>
<td>618</td>
<td>619</td>
<td>620</td>
<td>621</td>
<td>622</td>
<td>623</td>
<td>624</td>
<td>625</td>
<td>626</td>
<td>627</td>
<td>628</td>
<td>629</td>
<td>630</td>
</tr>
</tbody>
</table>

// INACTIVE FOR NEW DESIGN AFTER 8 APR 1975. //

**Requirements:**

1. **Material:** Carbon or alloy steel in accordance with ASTM A29/A29M-82. The maximum sulfur and phosphorus content shall not exceed 0.04 and 0.03 percent. Corrosion resistant steel, type 416 (UNS S41600) or type 410 (UNS S41000) as specified in ASTM A562-80 and ASTM A483-82.

2. **Hardness:** Carbon or alloy steel pins shall have a core hardness of 47-58 HRC and a case hardness of 60 HRC minimum. The core hardness of the pins shall not in any instance exceed the case hardness. Minimum penetration for the case hardness shall not be less than 0.20 inch. Pins 1/16 inch and less in diameter may have a hardness of 38-44 HRC throughout. Corrosion resistant steel pins, type 416 (UNS S41600) or type 410 (UNS S41000) shall have a hardness of 36-42 HRC.

3. **Protective Coating and Surface Treatment:** Carbon or alloy steel-plain, may be furnished with black oxide coating in accordance with MIL-C-13924, Class 1. Carbon or alloy steel phosphate coated in accordance with QQ-P-232-23, Type 2, Class 2. Corrosion resistant steel shall be cleaned, descaled, and passivated in accordance with ASTM A380-78.

4. **Surface Roughness:** Prior to coating surface roughness shall be 1/8" for "S" length and 125/1000 for all other surfaces in accordance with ANSI B46.1-78.

5. **Part Number:** The part number shall consist of the basic MS number, followed by a dash number from Table II, III, and IV.

**Example:** MS16555-1

- **Dash Number**
- **Basic MS Number**

**Notes:**

1. All dimensions are in inches.
2. Effective length "S" shall be a minimum of 75 percent of total pin length "L".
3. In the event of a conflict between the text of this standard and the references cited herein, the text of this standard shall take precedence.
4. Referenced government (or non-government) documents of the issue listed are that issue of the Department of Defense index of specifications and standards (DODS) specified in the solicitation form a part of this standard to the extent specified herein.

**Military Standard**

**MS 16555**

**Title:** Pin, Straight, Headless (Dowel) (.0002 over nominal size)

**Procurement Specification:** MIL-P-21145

**Supercedes:** 5315-0391

Page 3 of 3