INCH-POUND
MS27076D
24 September 2003
SUPERSEDING
MS27076C
30 June 1972

## DETAIL SPECIFICATION SHEET

NIPPLE, STRAIGHT, SWIVEL FLANGE
This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the product described herein shall consist of this specification and MIL-DTL-27272.


FIGURE 1. Nipple illustration.


## NOTES:

1. Use A dimension when the adjacent diameter to the left of plane B-B is greater than the $J$ dimension. When the adjacent diameter is equal to or less than the J dimension, the M dimension may be used in place of the A dimension.
2. Any design of nipple components to the left of plane $B-B$ is acceptable provided the nipple is a one-piece design, and the dimensions $B$ and $F$ and the requirements of this specification sheet and the procurement specification are met.

FIGURE 1. Nipple illustration - Continued.

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## REQUIREMENTS

Intended use. This part is a component of MS27062. This is a design standard for manufacturing purposes. The item is only procured as an integral part of adapter assemblies.

Identification of product. The Part or Identifying Number (PIN) for this part shall be shall be as specified in table I (e.g., MS27076-8C).

Dimensions and tolerances. Dimensions are in inches. Unless otherwise specified, break or radius all corners $.005,+.005,-.000$. All diameters must be concentric within .005 full indicator movement.

Material. PIN suffix C, corrosion-resistant steel, class 304, condition A, in accordance with SAE AMS-QQ-S-763.
PIN suffix D. Aluminum alloy, 6061-T651, in accordance with SAE AMS-QQ-A-225/8.
Finish. Corrosion-resistant steel, passivate in accordance with SAE AMS-QQ-P-35. Dry-film lubricate area X with lubrication conforming to SAE AS1701. No overspray allowed.
Aluminum alloy. Anodize in accordance with MIL-A-8625, type II, dye blue.
Remove all burrs and slivers.
Nipple illustration. See figure 1.
Surface roughness. Unless otherwise specified, maximum surface roughness shall not exceed $125 \mu \mathrm{in} . \mathrm{R}_{\mathrm{a}}$ in accordance with ASME B46.1.

Order of precedence. This specification takes precedence over the documents referenced herein. Unless otherwise specified, referenced documents shall be of the issue in effect on the date of solicitation.

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TABLE I. Nipple requirements.

| $\begin{gathered} \text { PIN } \\ \text { MS27076 } \end{gathered}$ |  | $\begin{aligned} & \mathrm{A}^{1 /} \\ & \mathrm{min} \end{aligned}$ | $\begin{gathered} \text { B } \\ \pm 0.015 \end{gathered}$ | C |  | $\begin{gathered} \hline D \\ +0.005-0.000 \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Steel | Alum |  |  |  |  | Steel | Alum |
| -8C | -8D | . 617 | 1.797 | . 098 | +. 004 | . 385 | . 385 |
| -10C | -10D | . 654 | 1.902 |  | -. 000 | . 420 | . 427 |
| -12C | -12D | . 755 | 2.107 | . 128 | +. 005 | . 500 | . 500 |
| -16C | -16D | . 831 | 2.193 |  | -. 000 | . 545 | . 545 |
| -20C | -20D | . 881 | 2.457 |  |  | . 565 | . 571 |
| -24C | -24D | 1.035 | 2.605 |  |  | . 665 | . 665 |


| $\begin{gathered} \hline \text { PIN } \\ \text { MS27076 } \\ \hline \end{gathered}$ |  | E |  | $\begin{gathered} \mathrm{F} \\ \pm .010 \end{gathered}$ | $\begin{gathered} \mathrm{G} \\ +.000 \\ -.005 \\ \hline \end{gathered}$ | $\begin{gathered} \mathrm{H} \\ \pm .005 \end{gathered}$ | $\begin{gathered} \mathrm{J} \\ +.005 \\ -.000 \end{gathered}$ | K |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Steel | Alum |  |  |  |  |  |  |  |  |
| -8C | -8D | . 32 | $\pm .12$ | 1.197 | . 431 | . 530 | . 616 | . 020 | $\begin{array}{r} +.005 \\ -.000 \end{array}$ |
| -10C | -10D | . 35 | $\pm .15$ | 1.252 | . 531 | . 625 | . 706 |  | $\pm .005$ |
| -12C | -12D |  |  | 1.432 | . 655 | . 760 | . 826 | . 030 |  |
| -16C | -16D | . 39 | $\pm .19$ | 1.463 | . 905 | 1.040 | 1.150 |  |  |
| -20C | -20D | . 48 | $\pm .28$ | 1.522 | 1.156 | 1.275 | 1.405 |  |  |
| -24C | -24D | . 50 | $\pm .30$ | 1.625 | 1.406 | 1.550 | 1.635 | . 035 |  |


| $\begin{gathered} \hline \text { PIN } \\ \text { MS27076 } \end{gathered}$ |  | $\begin{gathered} \mathrm{L} \\ \mathrm{~min} \end{gathered}$ | $\begin{gathered} \hline \mathrm{M}^{\mathrm{I}} \\ \mathrm{~min} \end{gathered}$ | N |  | P |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Steel | Alum |  |  |  |  |  |  |
| -8C | -8D | 1.030 | . 583 | . 345 | $\begin{aligned} & +.006 \\ & -.000 \end{aligned}$ | . 497 | $\begin{array}{r} +.005 \\ -.000 \end{array}$ |
| -10C | -10D | 1.130 | 620 | . 440 |  | . 586 |  |
| -12C | -12D | 1.240 | . 720 | . 560 |  | . 674 |  |
| -16C | -16D | 1.340 | . 796 | . 828 |  | 1.001 | $\begin{aligned} & \hline+.008 \\ & -.000 \end{aligned}$ |
| -20C | -20D | 1.570 | 846 | 1.058 |  | 1.255 | +. 005 |
| -24C | -24D | 1.720 | 1.000 | 1.282 | $\begin{array}{r} \hline+.005 \\ -.000 \end{array}$ | 1.490 | -. 000 |

1/ Use $A$ dimension when the adjacent diameter to the left of plane $B-B$ is greater than the $J$ dimension. When the adjacent diameter is equal to or less than the $J$ dimension, the M dimension may be used in place of the A dimension.

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Changes from previous issue. Marginal notations are not used in this revision to identify changes with respect to the previous issue, due to the extent of the changes.

## CONCLUDING MATERIAL

| Custodians: | Preparing activity: |
| :--- | :---: |
| Army - AV | DLA - CC |
| Navy - AS | (Project 4730-0868-053) |
| Air Force - 99 |  |
| DLA - CC |  |

Review activities:
Army - AR, AT, MI
Navy - MC, SA, SH
Air Force - 71

