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REV.  
E

AS21914™

FEDERAL SUPPLY CLASS  
4730

## RATIONALE

MATERIAL SPEC FOR WIRE RETAINER UPDATED TO CURRENT CALLOUT. TABLE 2 REVISED TO REFLECT PROPER LOCATION OF MATERIAL LETTER CODES IN PART NUMBER CALLOUT. QPL NOTE UPDATED TO CURRENT VERBIAGE.

## NOTICE

THE INITIAL SAE PUBLICATION OF THIS DOCUMENT WAS TAKEN DIRECTLY FROM U.S. MILITARY STANDARD MS21914. THIS SAE STANDARD MAY RETAIN THE SAME PART NUMBERS ESTABLISHED BY THE ORIGINAL MILITARY DOCUMENT. PROCUREMENT OF MS21914 PART NUMBERS TO THIS "AS" STANDARD MAY RESULT IN LOSS OF CONFIGURATION CONTROL WHERE DIFFERENCES IN THE CANCELLED MIL-F-18280 AND THE SUPERSEDING AS18280 PROCUREMENT SPECIFICATIONS EXIST.

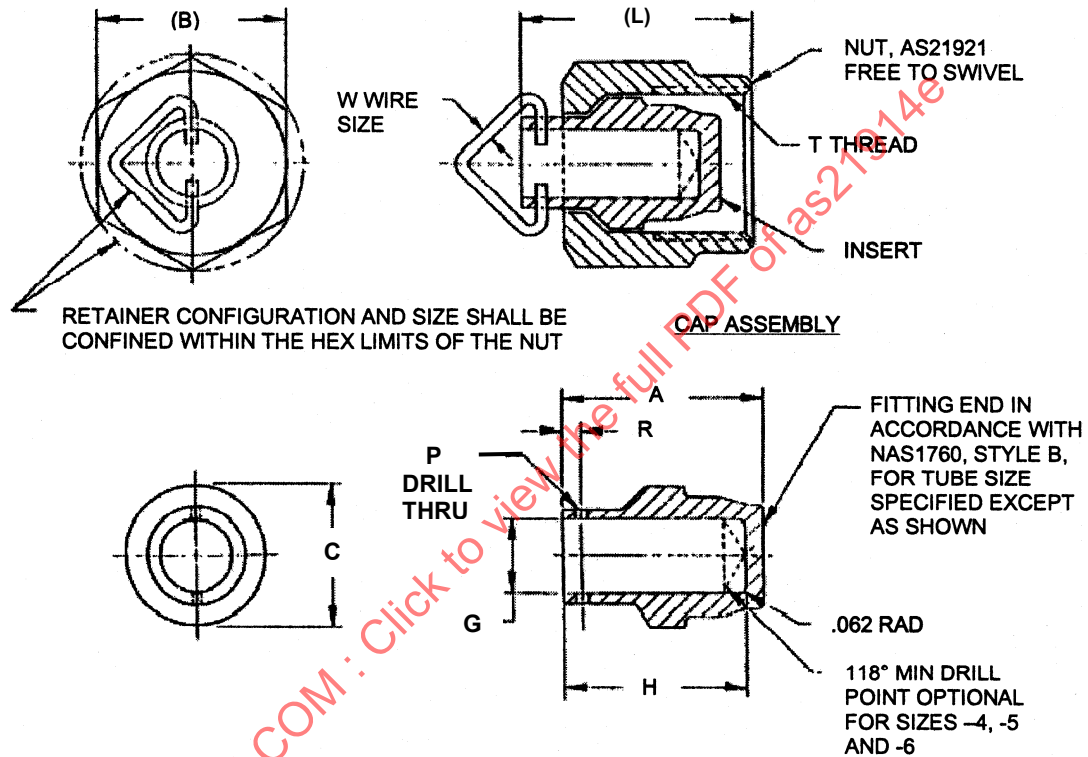
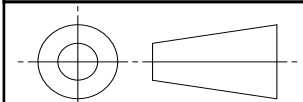


FIGURE 1 - CAP, PRESSURE SEAL, FLARELESS TUBE FITTING

For more information on this standard, visit  
<https://www.sae.org/standards/content/AS21914E>

THIRD ANGLE PROJECTION



CUSTODIAN: G-3/G-3B

PROCUREMENT SPECIFICATION: AS18280 /11/



## AEROSPACE STANDARD

CAP,  
PRESSURE SEAL,  
FLARELESS TUBE FITTING

AS21914™  
SHEET 1 OF 4

REV.  
E

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ISSUED 1998-03 REAFFIRMED 2015-04 REVISED 2023-11

**TABLE 1A - DIMENSIONS A-C**

| DASH<br>NO.<br>/6/ | NOMINAL<br>TUBE<br>SIZE<br>REF | (T) THREAD<br>AS8879 | A<br>±.010 | (B)   | C<br>±.005 |
|--------------------|--------------------------------|----------------------|------------|-------|------------|
| -2                 | .125                           | .3125-24 UNJF-3B     | .600       | .375  | .256       |
| -3                 | .188                           | .3750-24 UNJF-3B     | .672       | .438  | .318       |
| -4                 | .250                           | .4375-20 UNJF-3B     | .745       | .562  | .371       |
| -5                 | .313                           | .5000-20 UNJF-3B     | .845       | .625  | .434       |
| -6                 | .375                           | .5625-18 UNJF-3B     | .885       | .688  | .490       |
| -8                 | .500                           | .7500-16 UNJF-3B     | .935       | .875  | .670       |
| -10                | .625                           | .8750-14 UNJF-3B     | 1.062      | 1.000 | .786       |
| -12                | .750                           | 1.0625-12 UNJ-3B     | 1.082      | 1.250 | .960       |
| -16                | 1.000                          | 1.3125-12 UNJ-3B     | 1.218      | 1.500 | 1.210      |
| -20                | 1.250                          | 1.6250-12 UNJ-3B     | 1.193      | 2.000 | 1.470      |
| -24                | 1.500                          | 1.8750-12 UNJ-3B     | 1.271      | 2.250 | 1.719      |

**TABLE 1B - DIMENSIONS G-W**

| DASH<br>NO.<br>/6/ | G<br>DIA<br>±.010 | H<br>±.010 | (L)   | P    | R    | W<br>DIA<br>MIN |
|--------------------|-------------------|------------|-------|------|------|-----------------|
| -2                 | -                 | -          | .720  | .047 | .065 | .033            |
| -3                 | -                 | -          | .767  | .047 | .065 | .033            |
| -4                 | .187              | .600       | .893  | .047 | .087 | .033            |
| -5                 | .234              | .700       | .977  | .078 | .101 | .055            |
| -6                 | .297              | .740       | .965  | .078 | .101 | .055            |
| -8                 | .406              | .790       | 1.077 | .078 | .101 | .055            |
| -10                | .500              | .917       | 1.210 | .078 | .101 | .055            |
| -12                | .656              | .937       | 1.208 | .078 | .101 | .055            |
| -16                | .906              | 1.073      | 1.189 | .093 | .101 | .066            |
| -20                | 1.093             | 1.048      | 1.288 | .093 | .101 | .066            |
| -24                | 1.343             | 1.125      | 1.305 | .093 | .101 | .066            |

NOTES:

NOTICE

THIS DOCUMENT REFERENCES A PART WHICH CONTAINS CADMIUM AS A PLATING MATERIAL. CONSULT LOCAL OFFICIALS IF YOU HAVE QUESTIONS CONCERNING CADMIUM'S USE.

1. MATERIAL:

REFER TO PROCUREMENT SPECIFICATION.

NUT AND INSERT: ALLOY STEEL.

ALUMINUM ALLOY.

CORROSION-RESISTANT STEEL.

TITANIUM ALLOY.

RETAINER: STEEL WIRE, CLASS 302 ANNEALED PER ASTM A493 OR CLASS 305 PER AS5685.

2. FINISH: NUT, INSERT, AND RETAINER—REFER TO PROCUREMENT SPECIFICATION.

3. BREAK EDGES .003 TO .015, UNLESS OTHERWISE SPECIFIED.

4. SURFACE TEXTURE: SYMBOLS PER ASME Y14.36M. REQUIREMENTS PER ASME B46.1. UNLESS OTHERWISE SPECIFIED, MACHINED SURFACES TO BE 125 MICROINCHES Ra.

5. DIMENSIONS ARE IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES: DECIMALS ±.005, ANGLES ±0°30'.



**AEROSPACE STANDARD**

CAP,  
PRESSURE SEAL,  
FLARELESS TUBE FITTING

**AS21914™**  
SHEET 2 OF 4

**REV.  
E**


/6/ PART NUMBERS:

MATERIAL CODE DASH “-” IN PART NUMBER FOR 4130 ALLOY STEEL.  
 ADD MATERIAL CODE “V(SIZE)P” IN PLACE OF DASH FOR CORROSION-RESISTANT STEEL (15-5PH), CADMIUM PLATED.  
 ADD MATERIAL CODE “V” IN PLACE OF DASH FOR CORROSION-RESISTANT STEEL (15-5PH), NOT CADMIUM PLATED.  
 ADD MATERIAL CODE “D” AFTER DASH NUMBER FOR ALUMINUM ALLOY (2024).  
 ADD MATERIAL CODE “W” AFTER DASHNUMBER FOR ALUMINUM ALLOY (7075).  
 ADD MATERIAL CODE “J” AFTER DASH NUMBER FOR CORROSION-RESISTANT STEEL (TYPE 304).  
 ADD MATERIAL CODE “K” AFTER DASH NUMBER FOR CORROSION-RESISTANT STEEL (TYPE 316).  
 ADD MATERIAL CODE “R” AFTER DASH NUMBER FOR CORROSION-RESISTANT STEEL (TYPE 321).  
 ADD MATERIAL CODE “S” AFTER DASH NUMBER FOR CORROSION-RESISTANT STEEL (TYPE 347): (INACTIVE).  
 ADD MATERIAL CODE “T” AFTER DASH NUMBER FOR TITANIUM ALLOY (6AL-4V).

EXAMPLES OF PART NUMBERS:

|            |                                                                                        |
|------------|----------------------------------------------------------------------------------------|
| MS21914-4  | CAP, .250 TUBING, 4130 ALLOY STEEL.                                                    |
| MS21914V4P | CAP, .250 TUBING, CORROSION-RESISTANT STEEL (15-5PH), CADMIUM PLATED. SEE TABLE 2. /A/ |
| MS21914V4  | CAP, .250 TUBING, CORROSION-RESISTANT STEEL (15-5PH), NOT CADMIUM PLATED.              |
| MS21914-4D | CAP, .250 TUBING, ALUMINUM ALLOY (2024), SEE TABLE 2. /C/                              |
| MS21914-4W | CAP, .250 TUBING, ALUMINUM ALLOY (7075).                                               |
| MS21914-4J | CAP, .250 TUBING, CORROSION-RESISTANT STEEL (TYPE 304).                                |
| MS21914-4K | CAP, .250 TUBING, CORROSION-RESISTANT STEEL (TYPE 316).                                |
| MS21914-4R | CAP, .250 TUBING, CORROSION-RESISTANT STEEL (TYPE 321).                                |
| MS21914-4S | CAP, .250 TUBING, CORROSION-RESISTANT STEEL (TYPE 347) REPLACED, SEE TABLE 2. /D/      |
| MS21914-4T | CAP, .250 TUBING, TITANIUM ALLOY (6AL-4V).                                             |

7. PART MARKING: SEE PROCUREMENT SPECIFICATION.
8. DIMENSIONING AND TOLERANCING: ANSI Y14.5M-1982.
9. REFERENCED DOCUMENTS ARE THE ISSUES IN EFFECT ON DATE OF INVITATIONS FOR BID.
10. 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.
- /11/ PROCUREMENT SPECIFICATION: AS18280, EXCEPT AS SPECIFIED IN THIS STANDARD. PRODUCT MANUFACTURED TO THIS STANDARD SHALL MEET THE REQUIREMENTS SPECIFIED HEREIN AND THE PROCUREMENT SPECIFICATION. ORIGINAL COMPONENT MANUFACTURERS (OCM) SHALL BE LISTED IN THE PRI QUALIFIED PRODUCTS LIST (QPL) PRI-QPL-AS18280 FOR THIS STANDARD. SEE [www.eAuditNet.com](http://www.eAuditNet.com) FOR CURRENT QPL ONLINE.
12. REVISION INDICATOR: A CHANGE BAR (I) LOCATED IN THE LEFT MARGIN IS FOR THE CONVENIENCE OF THE USER IN LOCATING AREAS WHERE TECHNICAL REVISIONS, NOT EDITORIAL CHANGES, HAVE BEEN MADE TO THE PREVIOUS ISSUE OF THIS DOCUMENT. AN (R) SYMBOL TO THE LEFT OF THE DOCUMENT TITLE INDICATES A COMPLETE REVISION OF THE DOCUMENT, INCLUDING TECHNICAL REVISIONS. CHANGE BARS AND (R) ARE NOT USED IN ORIGINAL PUBLICATIONS, NOR IN DOCUMENTS THAT CONTAIN EDITORIAL CHANGES ONLY.
13. INTERPRETATION OF DRAWING PER AS4296.
14. INVENTORIED PARTS CONFORMING TO THE PREVIOUS LETTER CHANGE MAY BE USED TO DEPLETION.

|                                                                                     |                                                  |  |                                 |                         |
|-------------------------------------------------------------------------------------|--------------------------------------------------|--|---------------------------------|-------------------------|
|  | <b>AEROSPACE STANDARD</b>                        |  | <b>AS21914™</b><br>SHEET 3 OF 4 | <b>REV.</b><br><b>E</b> |
|                                                                                     | CAP,<br>PRESSURE SEAL,<br>FLARELESS TUBE FITTING |  |                                 |                         |