INCH-POUND

AN841 Rev 7
3 October 2013
SUPERSEDING
AN841 Rev 6
7 June 2011

DETAIL SPECIFICATION SHEET

# ADAPTER - HOSE TO FLARED TUBE

Reinstated after 7 June 2011. Inactive for new design after 7 June 2011. For new design, use SAE-AS5184.

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 sheet and SAE-AS4843/1.

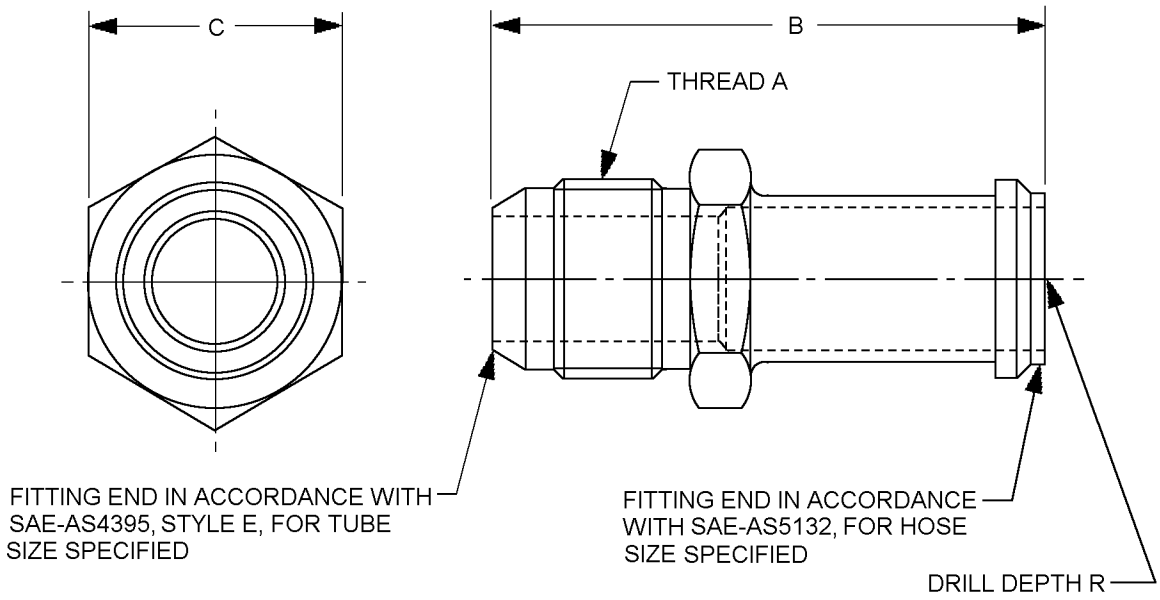



FIGURE 1. Adapter, dimensions and configuration.

| Dash number | Hose ID inches (mm) | Tube OD inches (mm) | Thread A | B ±.031 (0.79) inches (mm) |
|---|---|---|---|---|
| 4 | .250 (6.35) | .250 (6.35) | .4375-20UNJ-3A | 2.250 (57.15) |
| 6 | .375 (9.53) | .375 (9.53) | .5625-18UNJ-3A | 2.313 (58.75) |
| 8 | .500 (12.70) | .500 (12.70) | .7500-16UNJ-3A | 2.438 (61.93) |
| 10 | .625 (15.88) | .625 (15.88) | .875-14UNJ-3A | 2.563 (65.10) |
| 12 | .750 (19.05) | .750 (19.05) | 1.0625-12UNJ-3A | 2.688 (68.28) |
| 16 | 1.000 (25.40) | 1.000 (25.40) | 1.3125-12UNJ-3A | 2.781 (70.64) |

| Dash number | C ±.005 (0.13) inches (mm) | | R ±0.16 (0.41) inches (mm) |
|---|---|---|---|
| 4 | .688 (17.48) | +.004 (0.10) -.006 (0.15) | 1.625 (41.28) |
| 6 | .813 (20.65) | | |
| 8 | 1.000 (25.40) | | |
| 10 | 1.125 (28.58) | +.005 (0.13) -.006 (0.15) | |
| 12 | 1.375 (34.93) | | |
| 16 | 1.625 (41.28) | +.008 (0.20) -.016 (0.41) | |

NOTES:
1. Dimensions are in inches.
2. Metric equivalents are given for information only.
3. Break sharp edges and remove all hanging burrs and slivers.
4. Machined surfaces shall be finished to 125 µ-in Ra, forged surfaces shall be 250 µ-in Ra, unless otherwise specified on the figures. Surface finish shall be in accordance with ASME B46.1.
5. For design features purposes, this standard takes precedence over documents referenced herein.

FIGURE 1. Adapter, dimensions and configuration - Continued.

REQUIREMENTS:

Adapter dimensions and configuration shall be in accordance with figure 1.

Materials and finishes shall be in accordance with SAE-AS4843/1, see table I for material and finish codes.

TABLE I. Material and finish code letters.

| Material and finish code | Material | Protective chemical finish 3/ 4/ |
|---|---|---|
| No code 1/ | Copper alloy, type 377 forging in accordance with ASTM B124/B124M or half hard forging or bar in accordance with ASTM B138/B138M or bar in accordance with SAE-AMS4614. | No finish. |
| BC 1/ | Copper alloy, type 377 forging in accordance with ASTM B124/B124M or half hard forging or bar in accordance with ASTM B138/B138M or bar in accordance with SAE-AMS4614. | Cadmium in accordance with SAE-AMS-QQ-P-416, type II, class 3. |
| D 2/ | Type 2014-T6 aluminum alloy forging in accordance with SAE-AMS-QQ-A-367 or SAE-AMS4133, or type 2024-T6 aluminum alloy bar in accordance with SAE-AMS-QQ-A-225/6, or type 2024-T851 aluminum alloy bar in accordance with SAE-AMS-QQ-A-225/6 or SAE-AMS4339. | Anodize in accordance with SAE-AMS2472 or MIL-A-8625, type II, class 2, dye blue, duplex seal in accordance with procurement specification. |
| DV 2/ | Type 2014-T6 aluminum alloy forging in accordance with SAE-AMS-QQ-A-367 or SAE-AMS4133, or type 2024-T6 aluminum alloy bar in accordance with SAE-AMS-QQ-A-225/6, or type 2024-T851 aluminum alloy bar in accordance with SAE-AMS-QQ-A-225/6 or SAE-AMS4339. | High purity aluminum in accordance with MIL-DTL-83488, class 3, type II with maximum coating thickness of .0005 inch. Glass bead peen pressure shall be 25 psi (1.72 bar) maximum. |
| J | Type 304 corrosion resistant steel forging or bar in accordance with SAE-AMS-QQ-S-763 or SAE-AMS5639. | Passivate in accordance with SAE-AMS2700, type VI or VII. |
| K | Type 316 corrosion resistant steel forging or bar in accordance with SAE-AMS-QQ-S-763 or SAE-AMS5648. | Passivate in accordance with SAE-AMS2700, type VI or VII. |

See notes at end of table

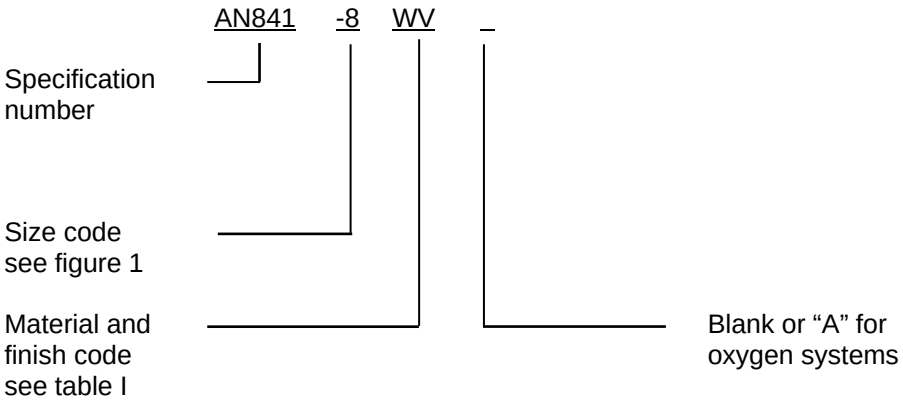
TABLE I. Material and finish code letters - Continued.

| Material code | Material | Protective chemical finish 3/ 4/ |
|---|---|---|
| R | Type 321 corrosion resistant steel forging or bar in accordance with SAE-AMS-QQ-S-763 or SAE-AMS5645. | Passivate in accordance with SAE-AMS2700, type VI or VII. |
| W 2/ | Type 7075-T73 aluminum alloy forging in accordance with SAE-AMS-QQ-A-367 or SAE-AMS4141, or type 7075-T73 aluminum alloy bar in accordance with SAE-AMS-QQ-A-225/9, in accordance with type 7075-T7351 Aluminum alloy bar in accordance with SAE-AMS4124. | Anodize in accordance with SAE-AMS2472 or MIL-A-8625, type II, class 2, dye brown similar to color 10080 in accordance with FED-STD-595, duplex seal in accordance with procurement specification. |
| WV 2/ | Type 7075-T73 aluminum alloy forging in accordance with SAE-AMS-QQ-A-367 or SAE-AMS4141, or type 7075-T73 aluminum alloy bar in accordance with SAE-AMS-QQ-A-225/9, in accordance with type 7075-T7351 Aluminum alloy bar in accordance with SAE-AMS4124. | High purity aluminum in accordance with MIL-DTL-83488, class 3, type II with maximum coating thickness of .0005 inch. Glass bead peen pressure shall be 25 psi (1.72 bar) maximum. |
| T 3/ | Titanium | Anodize in accordance with SAE-AMS2488, type 2. |

1/ Material code was dash on previous revisions, changed to agree with SAE-ARP1590.
2/ Aluminum code D is inactivated, use code W.
3/ Titanium and cadmium shall not be used in oxygen systems.
4/ Cadmium shall not be used in potable water systems.

Oxygen systems for aerospace, shipboard, and ground support equipment. Parts for use on oxygen systems shall be identified in the PIN as code “A” and shall be furnished cleaned, packaged, and labeled in accordance with SAE-AS611 to a process approved by the user.

Part or Identifying Number (PIN): The PIN consists of the prefix “AN”, specification sheet number, dash number for hose and flared tube size, material finish code letter(s) and blank of “A” for oxygen cleaning requirements. Unassigned PIN’s shall not be used.




PIN examples:

AN841-8W indicates an adapter hose and flared tube .500 inch (.12.70 mm), aluminum alloy 7075-T73.

AN841-8WV indicates an adapter 45° elbow .500 inch (.12.70 mm), aluminum alloy 7075-T73 finish with high purity aluminum.

AN841-8WA indicates an adapter 45° elbow .500 inch (.12.70 mm), aluminum alloy 7075-T73 for use on oxygen systems.

Guidance on use of alternative parts with less hazardous or non-hazardous materials. This specification provides for a number of alternative plating materials via the PIN. Users should select the PIN with the least hazardous material that meets the form, fit, and function requirements of their application.

Supersession data. The aluminum “D” designator has been replaced by the “W” designator.

Marking: Part shall be permanently marked with the AN PIN, and include the manufacturers CAGE, name, or trademark.

Table II provides a detailed cross-reference of AN841 PINs and replacement SAE-AS5184 PINs. Users are cautioned to evaluate replacements for their particular application.

CAUTION: The superseding information is valid as of the date of this specification and may be superseded by subsequent revisions of the superseding document.

TABLE II. Cross-reference data. 1/

| AN PIN Inactive part | Tube Size | AS PIN 2/ Active part |
|---|---|---|
| AN841-4 | .250 | AS5184B04 |
| AN841-4D | .250 | AS5184W04 |
| AN841-4J | .250 | AS5184J04 |
| AN841-4K | .250 | AS5184K04 |
| AN841-4R | .250 | AS5184R04 |
| AN841-4S | .250 | AS5184R04 |
| AN841-4W | .250 | AS5184W04 |
| AN841-6 | .375 | AS5184B06 |
| AN841-6D | .375 | AS5184W06 |
| AN841-6J | .375 | AS5184J06 |
| AN841-6K | .375 | AS5184K06 |
| AN841-6R | .375 | AS5184R06 |
| AN841-6S | .375 | AS5184R06 |
| AN841-6W | .375 | AS5184W06 |
| AN841-8 | .500 | AS5184B08 |
| AN841-8D | .500 | AS5184W08 |
| AN841-8J | .500 | AS5184J08 |
| AN841-8K | .500 | AS5184K08 |
| AN841-8R | .500 | AS5184R08 |
| AN841-8S | .500 | AS5184R08 |
| AN841-8W | .500 | AS5184W08 |
| AN841-10 | .625 | AS5184B10 |
| AN841-10D | .625 | AS5184W10 |
| AN841-10J | .625 | AS5184J10 |
| AN841-10K | .625 | AS5184K10 |
| AN841-10R | .625 | AS5184R10 |
| AN841-10S | .625 | AS5184R10 |
| AN841-10W | .625 | AS5184W10 |
| AN841-12 | .750 | AS5184B12 |
| AN841-12D | .750 | AS5184W12 |
| AN841-12J | .750 | AS5184J12 |
| AN841-12K | .750 | AS5184K12 |
| AN841-12R | .750 | AS5184R12 |
| AN841-12S | .750 | AS5184R12 |
| AN841-12W | .750 | AS5184W12 |
| AN841-16 | 1.000 | AS5184B16 |
| AN841-16D | 1.000 | AS5184W16 |
| AN841-16J | 1.000 | AS5184J16 |
| AN841-16K | 1.000 | AS5184K16 |
| AN841-16R | 1.000 | AS5184R16 |
| AN841-16S | 1.000 | AS5184R16 |
| AN841-16W | 1.000 | AS5184W16 |

1/ For new design use material designator R or W.

2/ SAE “B” designator for copper alloy parts can be either no finish or cadmium plate.

Order of precedence. Unless otherwise noted herein or in the contract, in the event of a conflict between the text of this document and the references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

Referenced documents shall be of the issue in effect on date of invitations for bid.

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.

Referenced documents. In addition to SAE-AS4843/1, this document references the following:

| | | |
|---|---|---|
| MIL-A-8625 | SAE-AMS-QQ-P-416 | SAE-AMS4614 |
| MIL-DTL-83488 | SAE-AMS-QQ-S-763 | SAE-AS4395 |
| FED-STD-595/10080 | SAE-AMS2472 | SAE-AS5132 |
| ASME B46.1 | SAE-AMS2488 | SAE-AS5184 |
| ASTM B124/B124M | SAE-AMS2700 | SAE-AMS5639 |
| ASTM B138/B138M | SAE-AMS4124 | SAE-AMS5645 |
| SAE-AMS-QQ-A-225/6 | SAE-AMS4133 | SAE-AMS5648 |
| SAE-AMS-QQ-A-225/9 | SAE-AMS4339 | SAE-ARP1590 |
| SAE-AMS-QQ-A-367 | SAE-AMS4141 | SAE-AS611 |

CONCLUDING MATERIAL

Custodians:
Army - AV
Navy - AS
Air Force - 99
DLA - CC

Preparing activity:
DLA - CC

(Project 4730-2013-051)

Review activities:
Army - MI
Air Force - 71

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at https://assist.dla.mil.