

INCH-POUND

A-A-59426
20 APRIL 1999

COMMERCIAL ITEM DESCRIPTION

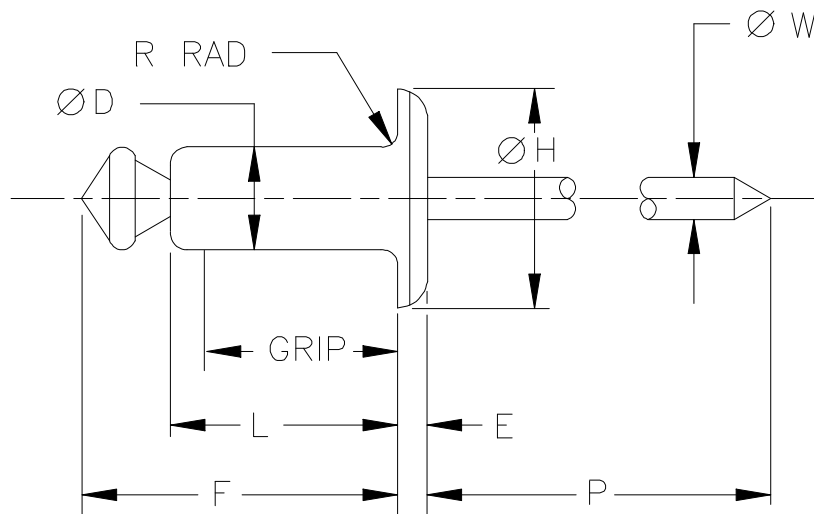
RIVETS, BLIND, NONSTRUCTURAL, RETAINED MANDREL,
OPEN END, DOMED HEAD, NICKEL-COPPER ALLOY

This General Services Administration has authorized the use of this Commercial Item Description for all Federal agencies.

1. SCOPE: This Commercial Item Description (CID) covers the requirements for pull-stem expandable blind rivets. These rivets are intended for rapid and permanent non-structural fastening applications in which access is available to one side only.

2. SALIENT CHARACTERISTICS:

2.1 Blind rivets furnished under this CID shall conform to the materials, strengths, and dimensions as specified in Table I, II, and III and as shown in Figure 1 below.

FIGURE 1. RIVETS

BENEFICIAL COMMENTS, RECOMMENDATIONS, ADDITIONS, DELETIONS, CLARIFICATIONS, ETC., AND DATA WHICH MAY IMPROVE THIS DOCUMENT SHOULD BE SENT TO: DEFENSE INDUSTRIAL SUPPLY CENTER, ATTN: DISC-AEEB, 700 ROBBINS AVENUE, PHILADELPHIA, PA 19111-5096.

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TABLE I. MATERIAL COMBINATION SYMBOLS AND STRENGTHS

| SYMBOL | MATERIAL COMBINATION | RIVET DIA | MINIMUM SHEAR LOAD LBS | MINIMUM TENSION LOAD LBS |
|--------|--|--------------|---------------------------------|-----------------------------------|
| E | Body: Nickel Copper Alloy (UNS N04400) Mandrel: 1030-1060 Steel (UNS G10300-G10600) | .125 | 350 | 450 |
| | | .156 | 550 | 700 |
| | | .188 | 800 | 1000 |
| | | .250 | 1400 | 1850 |

TABLE II. BASIC DIMENSIONS

| NOM DIA. SIZE CODE | NOM DIA | BASIC DIMENSIONS | | | | | | | RECOMMENDED HOLE SIZE |
|-----------------------------|------------|------------------|--------------|--------------|----------|-----------|-----------------|----------|--------------------------|
| | | ØD | ØH | E | R MAX | ØW NOM | F MAX | P MIN | |
| 4 | .125 | .128 .122 | .262 .238 | .040 .030 | .020 | .076 | L MAX + .120 | 1.00 | .129-.133 |
| 5 | .156 | .159 .153 | .328 .296 | .050 .037 | .020 | .095 | L MAX + .140 | 1.00 | .160-.164 |
| 6 | .188 | .191 .183 | .394 .356 | .060 .045 | .025 | .114 | L MAX + .160 | 1.00 | .192-.196 |
| 8 | .250 | .255 .246 | .525 .475 | .080 .065 | .030 | .151 | L MAX + .180 | 1.00 | .257-.261 |

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TABLE III. DASH NUMBERS AND DIMENSIONS

| DASH NUMBER | L MAX | RECOMMENDED GRIP RANGE |
|-------------|----------|---------------------------|
| E401 | .212 | .032-.062 |
| E402 | .275 | .063-.125 |
| E403 | .337 | .126-.187 |
| E404 | .400 | .188-.250 |
| E502 | .300 | .063-.125 |
| E503 | .362 | .126-.187 |
| E504 | .425 | .188-.250 |
| E602 | .325 | .063-.125 |
| E604 | .450 | .126-.250 |
| E606 | .575 | .251-.375 |
| E608 | .700 | .376-.500 |
| E804 | .500 | .126-.250 |
| E808 | .750 | .376-.500 |

2.2 Materials shall be of the type and grade specified in Table I.

2.3 Surface finish.

2.3.1 Nickel-Copper alloy bodies shall be zinc plated in accordance with ASTM B633 Type II, FE/ZN5.

2.3.2 Carbon steel mandrels shall be zinc plated or phosphate coated.

2.4 Workmanship. Rivets shall be of uniform quality and free from injurious seams and other injurious defects.

2.5 Single shear load. The shear test shall be performed in accordance with Test Method 20 of NASM1312, or equivalent and shall conform to the data specified in Table I.

2.6 Tension load. The tension test shall be performed in accordance with Test Method 8 of NASM1312, or equivalent and shall conform to the data specified in Table I.

2.7 Packaging requirements The requirements for packaging shall be in accordance with ASTM D3951.

3. QUALITY ASSURANCE PROVISIONS.

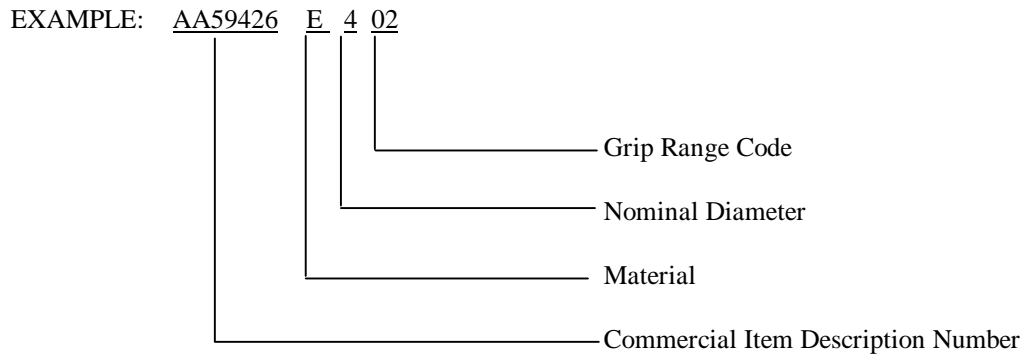
3.1 Product conformance. The products provided shall meet the salient characteristics of this commercial item description, conform to the producer's own drawings, specifications, standards, and the quality assurance practices, and be the same product offered for sale in the commercial market. The government reserves the right to require proof of such conformance.

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4. NOTES

4.1 All dimensions are in inches.

4.2 The part number shall consist of the basic Commercial Item Description Number followed by a dash number from Table III. The dash number consists of a material combination symbol from Table I, a nominal body diameter size code in thirty-seconds of an inch from Table II, and a maximum grip code in sixteenths of an inch taken from Table III.



AA59426E402 Indicates -

Rivet, blind, nonstructural, retained mandrel, open-end, domed head, nickel-copper (UNS N04400) alloy body, C1030-C1060 (UNS G10300-G10600) steel mandrel; nominal body diameter size, .125; grip range, .063-.125.

Military Interests:

Custodians:

Army - AR
Navy - AS
Air Force - 99

Preparing Activity:

DLA-IS

Review Activities:

Army - AV, MI
Air Force - 11, 82
National Security Agency-NS

(Project No. 5320-0955)

STANDARDIZATION DOCUMENT IMPROVEMENT PROPOSAL

INSTRUCTIONS

1. The preparing activity must complete blocks 1, 2, 3 and 8. In block 1, both the document number and revision letter should be given.
2. The submitter of this form must complete blocks 4, 5, 6 and 7.
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I RECOMMEND A CHANGE:

1. DOCUMENT NUMBER
A-A-59426

2. DOCUMENT DATE (YYMMDD)
990420

3. DOCUMENT TITLE:

RIVETS, BLIND, NONSTRUCTURAL, RETAINED MANDREL, OPEN END, DOMED HEAD, NICKEL-COPPER ALLOY

4. NATURE OF CHANGE

5. REASON FOR RECOMMENDATION

6. SUBMITTER

a. NAME (Last, First, Middle Initial)

b. ORGANIZATION

c. ADDRESS (Include Zip Code)

d. TELEPHONE (Include Area Code)

- (1) Commercial
(2) AUTOVON (If applicable)

7. DATE SUBMITTED (YYMMDD)

8. PREPARING ACTIVITY DLA-IS

a. NAME

Emelia Altomari

b. TELEPHONE (Include Area Code)

- (1) Commercial (215) 697-6827
(2) (DSN) 442-6827

c. ADDRESS (Include Zip Code)

Defense Industrial Supply Center
700 Robbins Avenue
Bldg. 3 (Code DISC-AESD)
Philadelphia, PA 19111-5096

IF YOU DO NOT RECEIVE A REPLY WITHIN 45 DAYS, CONTACT:

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Falls Church, VA 22041
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